

# Medical Times

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**NOTE THIS  
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Dwyer, L. and Reed, C. L.: The Treatment of Arthritis with Massive Doses of Vitamin D. *Arch. Phys. Therapy* 18:537 (Sept.) 1938.

Livingston, S. K.: Vitamin D and Fever Therapy in Chronic Arthritis. *Arch. Phys. Therapy* 17:704 (Nov.) 1936.

Stech, L. E.: Clinical Experience in Treatment of Arthritis with Massive Doses of Vitamin D. *Illinois M. J.* 71:243 (March) 1937.

Farley, R. T.: Management of Arthritis. *Illinois M. J.* 71:74 (Jan.) 1937.

*Reprints available to physicians on request.*

E F F E C T I V E I N E V E R Y T Y P E O F  
**A R T H R I T I S**

## Editorials

### State Society Trends

*And the King of glory shall come in.*  
—Psalms

**A** PROPOSED amendment to the by-laws of the Medical Society of the State of New York runs as follows:

"The component county medical societies, their officers, committeemen and members shall not initiate any policy, propose any legislation or participate in any activities that are contrary to the policies of the Medical Society of the State of New York. This shall not be interpreted to prevent a component county society from initiating any policy applicable to the profession within its boundaries and within the framework of adopted policy of the Medical Society of the State of New York."

If it is the desire of certain moving spirits in the society to promote agitation for compulsory health insurance it would seem that no better technique could have been devised; and what better proof could there be that the independent medical journal is more than ever a needed medium for the expression of opinion?

The author of this precious masterpiece possesses a subtly flavored sense of humor and a not so funny ideology recalling that of the "marihuana smokers of Moscow."

"Who is this King of glory?"

### The Amende Honorable

**A**N erroneous statement was recently made in these columns regarding the alleged suicide of a great psychiatrist, who was not named. Challenged by Dr. Karl A. Menninger to prove our statement, we have found that at the time of a certain distinguished psychiatrist's death it seemed that the theory of suicide was solely tenable, but that evidence was shortly thereafter adduced which made another theory much more tenable. We were aware of the first aspect of the

case, at the time of our erroneous statement, but not of the second, which we have studied since Dr. Menninger's communication.

We are the more desirous of placing these new facts on the record, since we chiefly regret that our error was one tending to bolster the widespread but thoroughly silly notion that "psychiatrists are as crazy as their patients or worse", a piece of medical folklore that is on a par with the superstitions about quarrelsome Celts, penurious Scots, erotic red-heads, and reserved Englishmen.

The viewpoint of the psychiatrist, toward both individual and society, is so sane and realistic that it is too bad that all of us cannot share it to a greater degree, for it would tend to insure us against many of the world's greatest evils. Who but the psychiatrist best understands the violence and sickness of the world today? Who most deeply fathoms the abnormal personalities and their dupes and victims that pollute the scene? Who can best prescribe the remedies? Who can best assay and appreciate the normal mind? What very great significance there was in the pronouncement against war and its factors, a couple of years ago, on the part of a group of three hundred *psychiatrists*! The pronouncement did not come from gynecologists or urologists.

Dr. Menninger's special interest in suicide grows out of the fact that he has just written a brilliant and widely read book on that subject—*Man Against Himself*.

### Coronary Thrombosis In Physicians

**T**HERE is an increasing number of physicians dying around the age of fifty of coronary thrombosis. It would be interesting to know if those who live in the country are less apt to have it than their city brothers. No doubt they have much less noise and there is much less wear and tear of life. On the other

hand, the country physician has a hard life in many ways.

Recently, a physician, aged about 75, was hurriedly called to see a woman of eighty-three who was seriously ill. He grabbed his bag and rushed to see the patient, who died as he entered the house, and the physician died a few minutes afterwards.

Some time ago a French physician addressed the Paris Academy of Medicine on the dangers of suddenly jumping out of bed. He believed that it was much better to take an hour to get out of bed, thereby not placing any strain on the body. My own opinion is that this is a good thing. But there are all sorts of hurried calls for a physician to go to some "dying" patient. Ninety-eight times out of a hundred it is for someone who has fainted or who has presented the picture of a person about to vomit—deathly color, cold clammy perspiration, and pulseless. The physician jumps out of bed before breakfast, hurries to the patient, and usually by the time he gets there the sick man is relieved.

I do not believe it is a good idea for a man after forty-five to jump out of bed and rush out to these calls, especially to someone who is eighty-three years of age and who would probably die in spite of anything he might do. While it would be unreasonable for a man to cripple himself to the point where he did not care to rush to a case, there are plenty of younger men in every community who would be glad to do this type of work. Why not give them a chance?

M.W.T.

### **"Would Osteopathy Be Good For This Trouble?"**

**I**t always lets one down a bit when a seemingly intelligent patient asks one if his ailment would be benefited by osteopathy. He is known to "have" an osteopath, to be called upon when his family physician "fails", and every once in a while he brings the subject up.

It is not easy to explain the principles upon which this type of patient makes therapeutic distinctions. In an instance that the writer recalls he was called in after an osteopath had spent

days upon an unfortunate child suffering from the prodromata of measles. When the rash suddenly appeared the nonsense stopped and regular medicine was summoned. Here the reason for choice is clear enough.

Nevertheless, these experiences let one down, because the thought is bound to occur: there is no flattery in one's selection by this type of patient, since he places one on the same plane and in the same category as his osteopath. The osteopaths are welcome to all such patients.

A sense of humor is indispensable in the practice of medicine.

### **Master and Man**

**D**R. C. CHARLES BURLINGAME, Psychiatrist-in-Chief of the Neuro-psychiatric Institute of the Hartford Retreat, in his annual report to the Board of Directors has many admirable things to say about the relation of the psychiatric hospital to the public and the medical profession. The report dealt specifically with the important place of psychiatry in the industrial world in solving the problems of the individual worker, thus increasing his efficiency. Dr. Burlingame's Institute is actually engaged in the care of employees of industrial concerns who, because of personality disorders, become less efficient in their work.

"Chronic fatigue, irritability, inability to get along with fellow-workers, a feeling of persecution, a chronic state of being 'agin the government,' crying for no good reason at all, on the job or at home, may be outward evidence of a condition which may so affect the efficiency of the worker that much of the value to himself and his employer is destroyed.

"More progressive employers are beginning to realize the dollars and cents value of finding an answer. This interest is not of the welfare variety, which implies a patronizing supplying of uplift facilities, recreational benefits, etc., but rather an intelligent effort to get at the root of the individual mental disorders just as industry is going at the problem of the employees' physical health."

Doubtless the ministrations of the Institute are not restricted to employees, but include the employers as well, for there is nothing in what we have just quoted from the report that might not apply to the heads of the local industries. That such a service in the nation at large is especially needed at the present moment seems obvious enough, in the light of the antics of some of our outstanding industrialists.

## Symbols of Culture

**N**ERVOUSLY unstable but uncreative people who suffer from boredom have always found resourceful escape through some gesture, preferably emotional. Thus the women of a former generation utilized the piano as a relief device. In this connection Chopin had a special significance, for here were emotion and a technique which took one into another world.

On lower planes we have had knitting and gum chewing, and finally the cigaret.

We understand that women who, because of periods of idleness incidental to their vocations, have become inveterate smokers, yet who when on duty, say as nurses, cannot respond to the cravings which beset them, are increasingly meeting their problem by chewing tobacco when at work.

To the rouged lips, tinted cheeks and painted nails add now the cud in cheek. Our culture now, objectively, has attained perfection.



## The Smokescreen Of Perfectionism

**W**E fancy that some of the lay gentry who are so assiduously bent upon

reorganizing the medical profession to suit their hearts' desire are perfectionists (in a bad sense). A perfectionist is not the same thing as a good citizen aiming at common decency or even the same thing as the ordinary specimen of reformer. A reformer seeks to "restore to former goodness." The great religious reformers sought to effect "moral or religious restoration or revival." All that the "good citizen" usually seeks to effect in the face of evil is to free things from abuses. The reformer, however, may go so far, at times, as to alter or reconstruct, but that is his limit.

A perfectionist is a gentleman who suffers from the strange obsession that through the socialization of medicine all preventable sickness could be prevented, all unpreventable illness perfectly treated, and all the medical problems that now bedevil us completely solved.

One sees at once that here is no virile reformer, but a puerile, sometimes vicious, dreamer just running amuck.

If this were an era of socialization, instead of what it is, the nuisances who pain us so greatly would cussedly postulate something like the present régime as the goal of perfectionism.

## THE PATIENT'S HOSPITAL RECORD

Today a man is brought into this world by an obstetrician. He is then turned over to a pediatrician who treats his measles, his scarlet fever, and his mumps. In young adult life the surgeon removes his appendix, and perhaps operates on his ulcer. At forty-five the internist treats his hypertension; and finally the urologist removes his prostate. This is in contrast to the days when one man carried him through all of these illnesses until the patient's physical—and I may add mental—shortcomings were engraved on the physician's mind.

In this day of increasing specialization and hospitalization it becomes correspondingly more necessary that the patient's changing physical status be perpetuated by some means whereby the patient may be treated in the light of what has gone before.—Andrew F. Mc-

Bride, M.D. In *Journal of the Medical Society of New Jersey*, March, 1938.

## URETERAL CALCULI

It has been estimated that probably 40 per cent of all ureteral calculi will pass without instrumentation. Statistics have also shown that another 40 per cent will pass following intra-ureteral manipulation. Here again, as in all urological work, application of the proper treatment should be based upon the several findings in the individual case, rather than being guided only by the size and position of the calculus. Surprisingly large calculi often pass following very little manipulation, while very small stones may resist repeated efforts to dislodge them . . . A clean-cut surgical removal of an impacted calculus may in certain instances, prove to be the more conservative treatment.—H. G. Bugbee, M.D. In *Bulletin of the New York Academy of Medicine*, March, 1938.

**S**QUILL, *Urginea maritima*, is a very old remedy. It was used by the ancient Egyptians and, in fact, by all nations of the Mediterranean region where the plant grows. Galen, Dioscorides and other ancients (1) extolled the virtues of squill in various conditions and even today, in European and Mediterranean countries, this drug is widely prescribed as a cardiac and renal stimulant. In the United States, however, it is not used so extensively for this purpose, probably because the preparations of it heretofore available in this country have been inconstant in cardio-renal activity, unstable and nauseating, although it has received some recognition as an emetic and expectorant, especially for children.

The nauseant and irritating substances in squill are not identical with the glucosidal principles which are responsible for its cardio-renal activity. In fact, Stoll (2) isolated the chemically pure natural cardioactive glucosides from fresh squill which he named Scillaren and which exist in the bulb as a mixture of two closely united fractions, differing somewhat chemically but said to have the same fundamental physiologic action. One component (forming about two-thirds of the natural mixture), a crystalline powder, very little soluble in water, is designated as scillaren-A. The remaining one-third, an amorphous substance, much more soluble in water, is called scillaren-B.

Scillaren is standardized by the cat unit toxicity method of Hatcher employed for testing digitalis. Because of the constant chemical state of Scillaren, however, the average dose of this preparation can be even more accurately determined by weight. Thus each oral dosage unit contains 0.0008 Gm. Scillaren or 4.4+ cat units and each ampule represents 0.0005 Gm. Scillaren-B or 3.4 cat units. These quantities in terms of cat units are larger than the

From the Appleton Clinic.

## CLINICAL EFFICACY OF *Squill Glucosides*

WALLACE MARSHALL, M.D.

Appleton, Wisconsin

usual dosage units of digitalis but because of its lesser cumulative properties and its more rapid destruction it is necessary to administer a relatively larger dose of Scillaren to accomplish a given result. Both Scillaren-A and Scillaren-B have been accepted for inclusion in New and Nonofficial Remedies (3).

**W**HILE the excellent effect of Scillaren in removing edema is probably for the most part the result of its beneficial action upon the heart and circulation, the French physicians believe that it also has a direct stimulant action upon the renal epithelium and thus brings about an increase in the urinary output. Solis-Cohen and Githens (4) say, "In dropsy dependent upon heart failure or congestion of the kidneys and sometimes in ascites or cirrhosis of the liver, squill acts as an effective diuretic causing a rapid draining of the fluid from the tissues or cavities of the body". As to the cardiant value of squill these authors further say that the use of this drug has increased recently through the introduction of its purified active principles, such as Scillaren, and which are said to be of particular value in functional cardiac insufficiency without valvular lesion and in cases characterized by low diastolic pressure.

Koerner (5) states that Scillaren when injected intravenously resembles strophanthin in speed of action but that in cumulative properties it stands closer to digitalis. Scillaren is less cumulative than digitoxin according to Weese (6),

who found that it is readily split up in the blood and quickly eliminated. Zwilling (7) says that the rapidity with which Scillaren is eliminated makes this preparation especially useful in patients who are hypersensitive to other glucosides and in cases in which the cardiologist for the sake of future treatment wishes to avoid drugs with greater cumulative action. Nevertheless, it does cumulate somewhat and is fully effective for the restoration and maintenance of compensation. The ready elimination of Scillaren according to Berger (8), Bach and Beer (9), and others is a decided advantage since it can, therefore, be used over a prolonged period with little danger of causing disturbances in conduction or myocardial degeneration. In the treatment of myocardial failure with squill glucosides Chamberlain and Levy (10) observed no evidence of intoxication and found that the symptoms of congestion tended to disappear, diuresis occurred, edema was lost, venous pressure fell, circulation time decreased and vital capacity improved.

**T**HERE is a paucity of papers in the American medical literature on the clinical properties of squill. This drug, however, appears to have certain advantages that commend it to the attention of the cardiologist, as may be seen from the following case reports:

1. Miss H. L., age 23, white, weight 97 pounds, height 5 feet, 6 inches, complained of inability to perform her work, which consisted of caring for the inmates of a hospital. Her symptoms had grown steadily worse since they were first noticed about six months previously. At that time they consisted of dyspnea on even slight exertion, night terrors that awakened her accompanied by a choking sensation and profuse sweating. As a child, the patient had whooping cough and two attacks of pneumonia. Subsequently, she has been submitted to an appendectomy and tonsillectomy.

Patient's mother died at 59 from unknown type of heart disease; her father is living but complains of "rheumatism".

During the physical examination the patient was "nervous" and apprehensive. Upon percussion, the heart borders were within the normal limits, although the heart appeared to be long and narrow; this was confirmed by fluoroscopy. There was a soft diastolic murmur at the left sternal margin in the third interspace. The systolic blood pressure was 136 and the diastolic 70. The pulse rate was 96, irregular and of diminished volume. There was slight edema of the legs as shown by pitting on pressure at the ankles. The joints of the elbows and fingers were enlarged but not painful. A diagnosis of myocardial insufficiency secondary to chronic valvular disease was made and since digitalis tincture had failed to fully control the symptoms, one tablet (0.0008 Gm.) of Scillaren twice daily was prescribed. In addition, a preparation of haliver oil and malt was given and, since it was necessary for

the patient to continue working, her occupation was changed to one requiring less physical exertion. Improvement in the clinical state began almost at once. The subjective symptoms soon disappeared and the pulse became normal in rate, rhythm and volume. The patient has now been under treatment for eighteen months and since the eighth month has gradually returned to the activities of her daily routine prior to this illness.

2. Mrs. S. B., age 67, weight 167 pounds, height 5 feet, 2½ inches, was referred by another physician because digitalis did not control the patient's decompensated heart.

The patient had submitted to a cholecystectomy and appendectomy in 1899, a cholecystectomy in 1902, panhysterectomy in 1917, and tonsillectomy in 1919. Her father and mother both died of an unknown type of heart disease. She had had three children, two sons living and well and one son dead at the age of eleven of pneumonia.

Upon physical examination the patient presented the usual clinical picture of severe decompensation. The symptoms were first noticed about six months previously and had grown steadily worse. Digitalis tincture in the usual dosage had failed to restore compensation. The systolic blood pressure was 216 and the diastolic 114. The pulse rate was 82, weak and irregular. The heart sounds were scarcely audible and there was a presystolic mitral murmur heard only at times. Percussion showed the heart to be enlarged 2 cm. to the right while the left border was found in the midaxillary line. Fluoroscopy confirmed the presence of a "cor bovinum". There was a large ventral hernia and rectal examination revealed fecal impaction.

The urine contained a moderate amount of albumin and much debris. The non-protein blood nitrogen was 50 mg./100cc.

The patient was restricted to bed and placed on a light diet. Digitalis was discontinued and Scillaren, 1 tablet twice a day, was given instead. At the end of one month, the blood pressure was 182 (systolic) and 86 (diastolic) on several different tests, but the weight remained about the same. The symptoms of decompensation had disappeared, and the patient stated that she felt good. The medication was continued and she was allowed to be up and around. All strenuous activity was forbidden, however, since the prognosis was not regarded as being at all favorable. The patient remained free from the constipation that had troubled her previously, without the aid of laxatives. About six months after the first office call, one of her relatives reported by phone that she could not catch her breath, and that she had lost consciousness. I hurried there but she had expired prior to my arrival.

3. Mr. J. J., age 69, height 5 feet, 3½ inches, weight 180 pounds, complained of dyspnea, nocturia, precordial pain and a chronic cough that had persisted for about a year and a half. Family and personal history were not important. Patient had been taking tincture of digitalis in the usual dosage on the order of a physician, but without satisfactory results.

Physical examination showed marked obesity, a blood pressure of 186 (systolic) and 110 (diastolic) on repeated examinations, great irregularity of the pulse (extrasystoles and dropped beats), right indirect inguinal hernia and, on percussion, the heart appeared to be enlarged to the left by three centimeters. Urinalysis revealed a small amount of albumin and a few hyaline casts.

It was necessary for the patient to continue his work, although he did give up the strenuous part of it and did not attempt to climb stairs. He was given a diet of cooked fruits and vegetables and one tablet of Scillaren in the morning and another in the afternoon. After a few days on this treatment, the patient's pulse was only slightly irregular, his blood pressure was 168 (systolic) and 106 (diastolic), and the distressing respiration and nocturia as well as other symptoms had disappeared. He has continued to be symptom-free for

four months except during times of emotional stress, when his heart "jumps" and he is forced to rest in a chair for an hour or so.

4. Mr. L. W., age 79, height six feet, weight 148 pounds, was first visited at his home. He was morbid, anticipating death. He complained of dyspnea, from which he had suffered for about a year, but which had recently progressed so that he was unable to sleep or walk. No position in a chair or bed gave relief. He had nocturia and was badly constipated. Physical examination showed the patient to be underweight. The heart rate was irregular with many extrasystoles and ectopic beats, and coarse, crackling râles were abundant in both lungs. Examination of the urine, chemical and microscopic, was negative. The diagnosis was myocarditis and senility.

One Scillaren tablet was given three times daily. In addition liver extract was injected intramuscularly and oral doses of haliver oil administered daily. In a few days the patient's pulse became regular, his bowel movements were normal, and the coughing spells and difficulty in breathing had lessened. The daily dose of Scillaren was reduced to two tablets and has remained so until the present. In all, he has now been under treatment for five months. He feels so well that he walks about 3 miles daily and, without my sanction, insists upon shoveling snow and doing other heavy work.

5. Mr. J. F., age 73, weight 118 pounds, height 5 feet, 6 inches, was under the care of another physician for about two years for a carditis of old age. His pulse was irregular and of poor quality. He complained of a "tight" feeling around his chest, a chronic hacking cough dating from the onset of his illness, and nocturia. His physician had prescribed tincture of digitalis in the usual dosage but there was very little improvement under this regimen.

Upon my suggestion, digitalis was replaced with three tablets of Scillaren daily and in addition he was given a haliver oil and malt preparation after meals. A decided improvement was noted after a week's medication. The dosage of Scillaren was decreased to two tablets daily and the patient has continued to do well and has gained twelve pounds over a period of three months. His heart has become regular and his pulse is normal in rate and volume. His cough has disappeared and he is able to do work about the home. He gets up only once a night but insists upon a glass of wine before retiring.

6. Mrs. W. P., age 39, height 5 feet, 3½ inches, weight 173 pounds, complained of precordial distress upon exertion. She awoke nightly in an excited state and was "nervous" most of the time. She suffered from chronic constipation and for about a month had experienced dull frontal and suboccipital headaches, which subsided with one or two aspirin tablets. She was a singer, but could not practice because of pain in her throat.

The family history was essentially negative. She married at 19 and had one stillbirth prematurely. She had the usual childhood diseases. Another physician found the blood pressure was 158 (systolic) and 70 (diastolic). The second aortic sound was accentuated. The non-protein blood nitrogen was 36 mg./100 cc. The blood sugar was 92mg./100 cc. The urinalysis was negative. Blood examination revealed 3,700,000 red cells and a 4+ Wassermann test. The electrocardiogram was negative. She was placed on the usual antisyphilitic therapy.

Six weeks later she complained of sharp neck pains and was re-examined. The blood pressure was: right arm 140 (systolic) and 78 (diastolic), left arm 160 (systolic) and 78 (diastolic). There was a bruit over the right anterior portion of the neck. After fluoroscopic examination, which did not show anything unusual, a diagnosis of an aneurysm of the innominate artery was made.

All antisyphilitic medication was stopped and she was digitalized by the Eggleston method, followed by a daily maintenance dosage of digitalis

folia. This treatment was continued for eight days when the patient insisted that the drug was making her nauseated. Following the ingestion of one pill she began to vomit, her face became swollen, and she experienced chills and a temperature of 102-104° F. Freshly prepared tincture of digitalis was given instead of the pill, but the patient continued to be nauseated, and complained of a general weakness and abdominal cramps when taking the drug. The patch test to a digitalis tablet was positive. The control test was negative.

Digitalis therapy was abandoned and the patient was given two Scillaren tablets daily. The abdominal distress disappeared and the cardiac symptoms improved. She was restricted to bed for six weeks and was then allowed to sit up in a chair for short periods daily. Following the unexpected arrival of some guests and the excitement that resulted, the patient complained of a tight, vise-like pressure in the precordial area; her heart became irregular and the aneurysm bulged markedly. She was put in bed again and has been kept there up to the present time, a period of two and a half months. The maintenance daily dose (2 tablets) of Scillaren has kept her symptom-free and she has slowly improved. In the meantime, a professor of medicine from a nearby university, called in consultation, confirmed the diagnosis and approved the method of treatment.

## Discussion:

DIGITALIS is undoubtedly the most popular cardioactive drug for routine use but the proper digitalization of a patient is not a particularly easy procedure. It must be remembered that, chemically, digitalis is a highly variable drug and that although it is standardized biologically, this standardization is based on its ability when injected intravenously to stop the heart of an experimental animal—a toxic manifestation. Clinically, we use digitalis chiefly by oral dosage to restore normal heart functions and to maintain them at a physiologic level. Since chemical differences in the crude drug preclude any uniformity between the pharmacologic and toxic effects of various digitalis preparations, a great deal of confusion and mystery surrounds digitalis therapy in the minds of many physicians who have not devoted special and intensive study to it. A still further cause for confusion of this subject has resulted from the tendency to administer digitalis products in dosages calculated in terms of cat units rather than in terms of clinical effect.

On the other hand, Scillaren is a definite chemical complex of fixed composition in weighed dosage forms and free from the variations that are characteristic of digitalis crude drug preparations. In prescribing Scillaren for patients who have been referred to me,

I have found that when they are returned to their family physician they can continue to use this preparation without the upsets that so frequently accompany the use of digitalis products that vary in therapeutic potency despite their toxicologic standardization.

Much has appeared in the foreign literature relative to the diuretic property of Scillaren. From my limited clinical experience with it, I have not found this to be marked. Rather, a surprising side reaction appears to be a mild laxative effect since all of the patients who took the drug have previously complained of chronic constipation but were relieved when treatment with Scillaren was begun.

Rowe (11) stated that: "Sensitization to any other ingested medication such as alkaloids and digitalis are possible". I have not found any reference to digitalis sensitization reported in the literature. The fact that the patch test to digitalis folia was positive in the

case of Mrs. W. P. and negative to sodium bicarbonate (control) indicates that this patient probably exhibited a gastro-intestinal type of allergy. It would have been quite impossible to attempt to continue this patient on digitalis. Fortunately, she responded nicely to therapy with Scillaren.

#### Summary:

**E**XCERPTS from foreign literature are reviewed in regard to the therapeutic merits of the chemically pure glucosides of squill in cardiac conditions. Six cases are presented which demonstrate the relative ease and reliability of medication with Scillaren and the particular merits of this drug. The last case is interesting in that an aneurysm developed in a case of lues under routine anti-syphilitic management. This patient possessed a gastro-intestinal allergy to digitalis but responded well to squill glucosides.

#### Bibliography

1. Sharp, G.: Pharm. J. and Pharmacist 84: 136, 1910.
2. Stoll, A.: The Cardiac Glycosides, London. The Pharmaceutical Press, 1937.
3. New and Nonofficial Remedies, Chicago, American Medical Association, 1937.
4. Solis-Cohen and Githens: Pharmacotherapeutics, New York, D. Appleton & Co. 1928.
5. Koerner, E.: Klin. Wchnschr. 3: 1072, 1924.
6. Weese, H.: Digitalis, Leipzig, Georg. Thieme, 1936.
7. Zwilling, L.: Wien. Arch. inn. Med. 31: 201, 1937.
8. Berger, A.: Fortschr. d. Med. 45: 18, 1927.
9. Bach, F. & Berr, A.: Deutsche med. Wchnschr. 61: 1591 (October 4), 1935.
10. Chamberlain, F. I., & Levy, R. L.: Am. Heart J. 14: 268-283 (Sept.) 1937.
11. Rowe, A. H.: Clinical Allergy, Lea and Febiger, Philadelphia, 1937.

103 WEST COLLEGE AVENUE.

#### THE COMMON COLD

Explorers who have been to the Arctic Circle say that Eskimos go through the bleakest winter without colds, only to start sneezing and wheezing the first day a foreign steamer drops anchor in the harbor in the Spring. Colds are infectious, and are caused by specific germs or viruses. One could sit in wet clothes by an open window on a cold winter day and, if there were no cold organisms present, he would not catch cold. The chances are, however, that cold germs *would be* present. Most people carry a quota of them all the time. When their resistance is lowered by wet feet or exposure, they succumb to the germs or virus and "catch cold". It is, of course, the micro-organism which causes the

cold, not the wet feet.—C. L. Ulmer, M.D. and R. P. Fischelis, Phar. D. In *Journal of the Medical Society of New Jersey*, March, 1938.

#### PERIPHERAL VASCULAR DISEASE

The treatment of senile and diabetic arteriosclerosis, thrombo-angitis obliterans, Raynaud's disease and erythromelalgia should be individualized since the fundamental pathologic process producing the gangrene or color changes is different in each condition. It is, therefore, unsound for either a physical therapist or general practitioner to treat peripheral vascular disease without adequate experience.—Irving S. Wright, M. D. In *Archives of Physical Therapy*, March, 1938.

# *Associated Physicians*

OF LONG ISLAND

## SCIENTIFIC PROCEEDINGS



IN presenting this brief paper on Recurrent Intussusception, I have no thought in mind of imposing upon your patience or time with a detailed compilation of historical data, etiological theories or statistics for scientific dress-up. What I have in mind is reducing the few cases I have seen to the bare facts so that we may evaluate surgical management.

Not more than a hundred cases are found in the literature ascribed to this cause. It is exceedingly rare in children under three, and more frequent in the third decade. It is definitely known that tumors have been present in the small bowel which did not cause intussusception. Autopsy findings have repeatedly borne this out.

As to why one tumor becomes the apex of an intussusception, with recurrences, and another does not, we have no factual explanation. If I were to select one of several theories as an additional factor of the tumor, I would choose a local lymphatic congestion, due to some secondary digestive disturbance. Once the neces-

sary factors exist, the most plausible explanation of the mechanism is the following:

The tumor body, lying in the lumen of the bowel, offers an object which the wave-like contractions of the circular muscles can grasp and force onward, just as they would a bolus of food. Then traction on the intestinal wall, at the point of attachment of the tumor, causes it to be pulled downward and inward to begin the intussusception. The peristaltic waves then carry the intussusception forward.

My seeing of 3 successive cases I regard as an exceptional coincidence, but

I feel, evidence to the contrary, that the frequency of this condition is far greater than the literature would indicate.

It is to be noted that in recent months, a greater number of cases of intussusception, caused by tumors of the small bowel, are being reported. Of those cases reported, the ileum is the site most frequently in-

involved, with the jejunum second and the duodenum a rarer third. Adenoma, fibroma, myoma and polypi are the order of frequency as to type of tumor.

I shall not mention symptoms or diag-

### RECURRENT

## *Intussusception*

### —MANAGEMENT

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nosis other than to repeat the old surgical formula that early diagnosis means early treatment and less serious complications.

### Treatment

THE treatment of tumor intussusception is entirely surgical. If the tumor is left, intussusception will recur. The surgical management, once the intussusception has been reduced, depends first upon the condition of the bowel and, secondly, the nature of the growth. In those cases where either delay in diagnosis or delay in surgical intervention has resulted in destruction of the circulation and wet gangrene, we have a critical problem to deal with. Here, with a definite destruction of the circulation, we have a definite indication for reconstruction; resection in our only solution.

How are we to handle such a case when it is presented to us? If we are to be guided by the experiences of many of our leading surgical clinics, immediate resection offers us but a bare outside chance of success. To quote but a few of these statistics:

Hipsley—2 resections out of 50 cases—both died.

Clubbe—15 cases—mortality 88 per cent. Petersen and Carter—16 cases—mortality 76 per cent.

St. Bartholomew's in London—resections in 15—15 deaths.

Mayo reported a series of 19 cases—2 resections—2 deaths.

So, unless a man is possessed of some super-skill and a great good fortune, he must face a mortality of 90 per cent plus.

We are all aware that resection in any acute obstruction is a hazardous procedure, regardless of cause. Our experiences have brought clearly to light the reasons for our failures.

We have learned that edematous tissue does not lend itself to rapid healing. We have learned that in dealing with such tissue, if we draw the suture line too taut, with the idea of allowing for recession of the edema, necrosis may result, due to the additional pressure brought to bear on the already impaired capillaries.

If, on the other hand, we attempt to remedy this with a loose suture line, a leak will result when and if the edema

subsides. We have learned that intestinal flora are more virulent under such circumstances and I need only mention the strain of intestinal distention and many other entities which add complications and difficulties.

To avoid, then, the staggering mortality, we must employ the stage operation.

In recent years, the stage operation, with its resultant betterment of circulation and control of infection, has been firmly established. I would recommend, then, the extraperitonealization of the gangrenous loop until a suitable circulatory recovery has been effected. Then resection.

Let us next consider intussusception due to tumor, which, on reduction, shows a moderate degree of circulatory impairment but which we feel should recover.

The tumor may be benign, malignant, or may turn malignant at a later date. If it is left, however, there will be a recurrence of the intussusception.

To remove it we have but two choices: First—the resection of the tumor with the involved loop, or second—enterostomy.

We can safely say that the success of resection is in direct ratio to the degree of circulatory impairment.

Unquestionably, there are isolated cases, such as the simple intussusception of ileum into ileum, with sufficient healthy proximal and distal bowel to permit of successful resection. The majority of the cases reported, however, are ileum into colon, and require some type of ileocolostomy if resected. Immediate resection of the tumor and the involved loop of ileum or jejunum presents many of the same difficulties already mentioned, and the experiences of many competent surgeons place the mortality at well over 40 per cent.

If, then, in the opinion of the operator, the type of tumor is such that resection seems indicated, it would again seem wiser to employ some type of stage operation. The involved loop, with tumor, should in some way be fixed to the cecum, anterior abdominal wall, or wherever or however would seem wisest to prevent temporarily recurrence of the intussusception.

When sufficient time has elapsed to allow for recovery of the circulation, re-

section can then be accomplished under more favorable circumstances and with a greatly lowered mortality.

Enterostomy offers us a much simpler and safer procedure in benign tumors. If we attack the tumor directly through the involved loop, we have the same circulatory impairment and, of course, the same suture line problem—but to a lesser degree. And, again, a too liberal closure of our enterostomy opening, on excision of a tumor with a wide base, may result in stricture.

### First Case

When I came upon my first case, the three-year-old son of my associate, in May, 1934, I was at a loss as to just how to handle the tumor. I was aware of the risks that the various procedures presented and hesitated to impose immediately any of them.

The reduction had been accomplished within a few hours after the onset, but there was a rather marked circulatory impairment. The tumor was situated about 8 cm. from the cecum on the antemesenteric border of the terminal ileum and was about the size of a small walnut.

After due deliberation, I fixed the terminal ileum, and tumor, to the mesocolon and wall of the cecum; similarly to a non-tumorous intussusception procedure.

Through this step I had hoped temporarily to prevent recurrence of the intussusception and allow the embarrassed circulation a better chance to recover. I planned to remove the tumor at a later date.

The child was then placed on a low residue diet, mineral oil and observation. He had an uneventful recovery and did so well that the parents were reluctant to submit him to a second operation until he had reached a higher degree of resistance.

About four months elapsed, when there was a recurrence of his intussusception. Within a few hours I had reduced the intussusception and would describe the conditions found as similar to my findings at the first operation. The fixation which I had made at the first operation had not held, and there were no signs of it ever having been made.

In the meantime, I decided that I could remove the tumor and minimize the risk of stricture and leak by entering the lumen through normal bowel at a distance from the tumor. I have not seen this procedure described previously, but it would seem to me to offer a great advantage over an enterostomy directly over the tumor in the disturbed loop.

I simply chose an area well beyond the involved loop, made a 1½" incision on the antemesenteric border, clamped the proximal bowel, placed a long Kelly clamp in the lumen and worked along until I grasped the tumor.

I then shelled the bowel over my clamp, excised the tumor at its base, brought the mucosa together, and closed the enterostomy.

The pathological report was: Myomatous. At the present time he is a normal and healthy boy.

### Second Case

My second case was a boy three years of age, whom I first operated upon February 8, 1933.

At that time I made a note in my operative findings that on the terminal ileum, about 1½" from the cecum, there was an area about 1" in diameter showing definite and marked thickening. I noted: "Does not feel like a definite tumor, but

rather like a localized patch of hypertrophied mucosa. Probably inflammatory."

I fixed the terminal ileum to the cecum and mesocolon. The boy was discharged on February 19, 1933, having made an uneventful recovery.

Almost two years to the day, on February 17, 1935, the boy was re-admitted with a recurrence of his intussusception. After reduction, at the site previously described, I found a tumor mass about 4 cm. in diameter filling two-thirds of the lumen, which was the apex of his intussusception. About 24" of terminal ileum were involved in a circulatory disturbance.

There was moderate edema and discoloration, with a few hemorrhagic patches and numerous enlarged mesenteric glands.

I opened the bowel several inches beyond the involved area, grasped the tumor with a clamp, prolapsed it into the enterostomy opening and dissected it free from the underlying muscular coat. This tumor had a sessile base and after removal there was some thinning of the intestinal wall at the site of dissection. I fortified this with two interrupted sutures in the serosa at the expense of some narrowing of the lumen.

The pathological diagnosis was: Myoma.

The boy made an uneventful recovery and was discharged March 2, 1935.

He is still well, with no intestinal disturbance to date.

### Third Case

My third case was a girl thirteen years old, admitted July 22, 1936, and died August 5, 1936.

She gave a history of repeated attacks of colicky pains and vomiting for two months. She had lost twenty-one pounds and her general condition was poor.

We consumed a few days in an attempt to make a diagnosis, which was not definitely made pre-operatively. She was given blood transfusions and other supportive treatment and then submitted to operation.

At operation I found a tremendously dilated colon with the apex of an intussusception at the sigmoid. An attempt at reduction by milking the mass backwards, with the mildest traction on the ileum, failed. I encountered no difficulty until I reached the mid-ascending colon. At this point I was stumped. Realizing that the duration of the intussusception was so long that adhesions could form, I placed my finger in the neck of the intussusception and broke up numerous fine adhesions. I still was unable to reduce the mass.

I then opened the ascending bowel immediately over the apex of the mass. A polypoid tumor, about 13 cm. by 4 cm., presented itself. With much difficulty, due to anatomical distortion, I discovered that the base of this polyp was attached to the terminal ileum at about 1" from the valve. I attempted to dissect it free from its base, but, due to the thinning of the wall, the ileum was opened. Once, however, I had removed the mass, reduction of the intussusception was simple.

Here, in spite of considerable narrowing of the lumen, I selected closure of the rent in the ileum rather than resection. The opening in the colon was closed and, going into healthy bowel, an ileostomy of the Witzel type was performed in order to effect short-circuiting and decompression.

The child did fairly well for several days; her general condition was reasonably satisfactory.

On the fifth postoperative day she developed a fecal fistula at the site of the damaged ileum and on August 5, 1935, died of a spreading peritonitis.

In presenting this last case, I realize there were many factors, technical and otherwise, which contributed to the child's death. It forcibly clinches one fact, however, that devitalized tissue is hazardous material on which to work.

In summation: Be tumor conscious!

In dealing with intussusception, palpate carefully the reduced loop. Finding

an unsuspected tumor, you may prevent a recurrent intussusception.

Avoid immediate resection. If gangrene has developed, extraperitonealize and do some type of stage operation. If not, and resection seems indicated, fix the involved loop intraperitoneally to prevent recurrence of the intussusception, await the restoration of the circulation, and then resect.

Where it is possible, remove the tumor

by enterostomy. Work through healthy bowel and avoid the damaged loop.

Pedunculated tumors should be simple. Tumors with a sessile base can be, with careful dissection, removed successfully. If, on microscopic examination, the tumor proves malignant, a second operation under more favorable conditions can be performed.

272 JEFFERSON AVENUE.

## *Three Unusual Urological Cases* IN CHILDREN

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THE purpose of this paper is to present to this gathering three cases of urological pathology, in children, which were wrongly diagnosed or accidentally discovered in the course of a physical examination. The average physician is apt to overlook or even neglect the urological tract in these little patients. With the advent of smaller-sized cystoscopes, intravenous pyelography and the x-ray, many conditions are now being diagnosed that formerly were never even suspected to exist. To quote Dr. Meredith Campbell, who perhaps of all urologists has done most to make the urologist pediatrically conscious, "Pediatric" urology is still in its diaper age and as yet comparatively few physicians are experienced in it. One-half of all children suffer from some type of urologic disturbance before they reach puberty. It is our duty to make medical advisers of the young more urologic-minded, and that in turn, urologists will see their young patients, in part at least, through the eyes of the pediatricist."

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JUNE, 1938

The first case was that of a female child of eleven months with a history of continuous fever for the past two weeks. It had been treated in one hospital as spinal meningitis, due to the fact that there was limited motion in the left leg. A spinal tap was done and this diagnosis was ruled out, and a diagnosis of tuberculosis of the left hip was then made. On admission to an orthopedic hospital, a lump was found in the left flank. The case was then transferred to this hospital.

Physical examination showed an acutely ill child with a temperature of 104 degrees. Abdomen was found to be slightly distended. Marked tenderness was present in the lower left quadrant. This area of tenderness extended up into the flank. A mass could be palpated which felt as if it were kidney. The spine was held arched, and the left thigh was held flexed, due to spasm of its muscles. Extension of the leg was accompanied by pain.

X-ray studies were done by means of flat plates and intravenous pyelograms, which showed a large mass in the L.U.Q., which might be due to a hydro or pyonephrosis. The intravenous pictures showed a normal right kidney. The function in the left kidney was somewhat diminished, and the calices were enlarged and dilated, with accentuation of the spaces between the calices, suggesting a pus kidney.

The laboratory reported a blood picture of 30,000 wbc, with 88 per cent polys, 70 per cent hemoglobin and 3,640,000 rbc. The urine contained 2 plus albumin, with a few hyaline and granular casts; 15-20 pus cells per field.

The patient was in the hospital for eleven days before the parents would consent to allow the child to be operated upon. At this time there was definite bulging and fluctuation over the flank. The pre-operative diagnosis of perinephritic abscess secondary to a ruptured cortical abscess was made and operation done.

Operation revealed an abscess containing about a quart of pus under considerable pressure. This

abscess was found behind the kidney, extending up to the diaphragm, from the crest of the ilium, and medially to the spine. The kidney was carefully examined to see if there was any evidence of extension from the kidney cortex but none was found.

The second case is interesting in that we were dealing with a phantom tumor, that would appear only to disappear again. This time we had a white child aged fifteen months; admitted with edema of both legs and distention of abdomen. The history was of nineteen days duration, at which time the patient was admitted to another hospital with a diagnosis of "double pneumonia". After being confined in the hospital for four days, the parents insisted on removal to his home in order that he might die there. Seven days later he had a change for the better and recovered. In spite of his apparent recovery, the fever persisted. About this time a swelling of the left leg was noticed. Three days later the other leg became swollen. An x-ray picture of the child's chest was then taken and a diagnosis of "either a collapsed lung or an unresolved pneumonia" was made. The child was then admitted to this hospital.

Examination showed a rachitic and poorly nourished child, acutely ill. Left ear drum is bulging and the left ear is discharging pus. Pharynx is injected. Friction rub is present over the lower left chest anteriorly. Scattered râles are heard over both bases. The abdomen shows dilatation of the superficial veins. No fluid wave is present. Spleen is not palpable. The liver edge is felt 2 cms. below the costal margin. A definite mass is palpable in the right flank posteriorly. The extremities show pitting on pressure with the right leg markedly larger than the left.

The opinion was that this patient had (a) bronchial pneumonia, (b) rickets, (c) secondary anemia, (d) intra-abdominal tumor—(1) Wilms' tumor (2) polycystic kidney (3) lymphosarcoma.

On admission to the hospital, child was treated by the pediatric service for its pneumonia and the anemia. At this time the urine showed gross blood mass and the patient had a temperature of 103.8. The blood picture showed Hm 25 per cent, R.B.C. 2,060,000, W.B.C. 10,500, 76 per cent polys, 22 per cent lymphocytes, 2 per cent monocytes. The blood chemistry—4mg. uric acid; 20 mg. urea nitrogen; sugar .10 per cent. It weighed sixteen pounds. The tumor mass suddenly disappeared three weeks after admission to the hospital. It was interesting to note that all the time the mass was present, blood was found in the urine. The mass never seemed to cause any pain to the child. An intravenous pyelogram was done which showed an enlarged right kidney without any function. The left kidney was normal in size and had a normal function. The child was treated for its pneumonia and for the anemia. Two transfusions were given along with iron and liver medication for the anemia. About one month later, the mass returned, as did also the hematuria. An intravenous pyelogram at this time showed the same conditions as the previous one. By this time the patient was in much better condition. His hemoglobin now was at 55 per cent, and his weight was 26 pounds. Nephrectomy was decided upon as the proper course to pursue.

Pre-operative diagnosis of an intermittent hydronephrosis was made. A operation a normal-sized kidney was found, hard in consistency, and densely adherent to the surrounding structures. The kidney was yellow in color. There were no pulsations noted in the kidney pedicle. The ureter was normal throughout. The pathological diagnosis was ischemic degeneration of the kidney.

The third case was that of a white female child of three years, admitted with a complaint of "lump in the abdomen". About a week before the mother noticed a mass in the right upper abdomen. The child did not complain of any pain, but when asked if the mass hurt, she would occasionally say it did. She has had a slight fever this past week.

There has been no frequency, hematuria or dysuria. The child has always been in good health. The bowels have always been regular. The mother states that the mass has not increased in size since it was first noted. Past history was negative. Family history was negative.

Physical examination revealed a well developed and nourished child not acutely ill. Temperature 100.4 degrees per rectum. The examination was negative with the exception of the abdomen, which revealed the following signs. There was a smooth mass in the upper right quadrant, rounded and cystic to the touch, freely movable, not tender, and about 10 cms. in diameter. It was apparently kidney. Liver and spleen were not palpable. Left kidney was not palpable. The child was worked up urologically to determine the kind of tumor with which we were concerned. An intravenous pyelogram was done and the findings were: a large right kidney with pelvis and calices filled, and some dilatation present. The appearance was one of solitary cyst of the lower pole of the kidney rather than of a malignant tumor. Left kidney normal in size, shape and appearance. This was followed by a cystoscopic examination and retrograde pyelogram. The flow of urine on the right side was normal in rate and on microscopic examination was negative for blood and pus. The retrograde pyelogram was essentially the same as the intravenous one. Blood chemistry was normal. The patient had a moderate secondary anemia. At no time was there ever blood found in the urine. Following admission to hospital the mass began to increase rapidly in size. A series of 7 deep x-ray treatments was instituted to decrease the size of the mass in case nephrectomy was to be done. A rest period of two weeks was given to allow the x-ray to do its work. But the mass continued to increase. The mass now extended from the costal margin downward to below the iliac crest, and medially to the umbilicus. It was still cystic in character.

Following transfusion, operation was performed. The kidney was easily freed of the surrounding adhesions. The upper two-thirds of the kidney was normal. The lower pole was the site of a growth the size of a fetal head. Through a rent in the mass there exuded a fibrogelatinous substance. The tumor was perfectly smooth and felt cystic throughout. The wall had an abundant blood supply, but the interior was bloodless. In general appearance, the tumor simulated brain tissue. The ureter was normal.

The pathology department reported that the specimen consisted of a mass of tissue 14x7x5 cms. From the mid-portion of the kidney there arose a large tumor which was yellowish-gray in color, with many areas of hemorrhage, necrosis and small cyst formation. The tumor was of brain consistency. Only one pole of the kidney remained. The adrenals were not found. Microscopically, the sections showed masses of carcinoma, in which there was an attempt at kidney tubule formation. The cells were hyperchromatic, and there were some mitotic figures present. There were many areas of necrosis and hemorrhage. Diagnosis—embryonal adenocarcinoma of kidney.

Patient made an uneventful recovery, except for an acute otitis media. On discharge she appeared fairly well. Two months following discharge the patient, who had gradually been failing in health, died.

**T**HREE cases have been presented. Any one of these cases might have occurred in any doctor's practice. If the urological tract is not constantly investigated in these young patients, the true diagnosis will be overlooked, and many remediable conditions become worse and lead to the destruction of the kidney.

The first case presented signs and

symptoms of central nervous system pathology, hence the urinary tract was overlooked. This condition of perinephritic abscess has a tendency to present symptoms which becloud the true diagnosis and must always be considered when there is any sign of psoas muscle spasm and contraction.

The second case was one of those that was discovered while the patient was being treated for a concomitant disease. This unusual pathological condition was only diagnosed correctly at operation. But the credit for its recognition is to be given to the pediatric service.

With respect to the third case—cancer of the kidney—I wish to emphasize that malignancy of the kidney in children is not a rare disease, and is being discovered much more frequently now than for-

merly. This is probably due to the advent of intravenous pyelography. This particular patient was sent into the hospital by a doctor who was called in to treat the child for a grippe. Doubtless there are many cases like this, but the examining physician fails to make a thorough examination.

So in conclusion, may I ask that all of you become more urological-minded when treating your young patients. Be sure to examine the costovertebral angles, and the course of the ureters. Do urine examinations in all questionable cases. And one day a case will be diagnosed which otherwise would have been overlooked, and the pleasure and satisfaction of that one diagnosis will compensate you for your efforts.

458 CLINTON AVENUE.

## *Hemorrhage in Peptic Ulcer:*

### RÉSUMÉ OF TEN YEARS AT ST. MARY'S HOSPITAL, BROOKLYN, N. Y.

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OF the important complications of peptic ulcer, hemorrhage is the most frequent, and next to perforation the most serious. The term peptic ulcer includes both gastric and duodenal ulcer, for the symptomatology and the treatment of the hemorrhage, in either case, is essentially the same. This survey includes 66 cases of gross hemorrhage complicating peptic ulcer which were treated in St. Mary's Hospital during the past ten years.

#### *Pathologic Anatomy*

An ulcer which erodes a blood vessel is active and progressing. Ulcers in the

stomach or along the anterior wall of the duodenum are more likely to heal early than those in the posterior wall of the first and second portions of the duodenum. The latter show more tendency to become chronic and to cause severe bleeding. The invasion of the retroduodenal and pancreatic tissue by an ulcer of the posterior wall of the duodenum causes an inflammatory process with adhesions to the periduodenal structures, thereby holding the ulcer open and enhancing chronicity. Fatal hemorrhage usually is caused by erosion of a large artery along the posterior wall of the first or second portion of the duodenum. In the chronic cases, the arterial wall is surrounded by scar tissue which tends

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to hold the artery open so that the lumen gapes.

The bleeding from a peptic ulcer may be classified into three groups according to severity.

1. A very slight ooze—which causes no symptoms except occult blood in stools.
2. The larger hemorrhage which is manifested grossly in the stool but doesn't cause the usual symptoms of internal hemorrhage.
3. The massive hemorrhage—which is manifested by hemorrhage or melena and by the usual symptoms and signs of internal hemorrhage such as we shall now cite.

#### Symptomatology

THE symptoms and signs of gross hemorrhage vary with the volume and rapidity of the loss of blood. Exacerbation or recurrence of the ulcer symptoms usually immediately precedes the onset of hemorrhage. Not infrequently, however, there is no history of ulcer symptoms. Eight cases in this series give no history of symptoms, and in seven other cases the history was of short duration—less than six months.

Dietary indiscretion or alcohol may immediately precede the onset of hemorrhage. Nausea is usually the first symptom and may be followed by the vomiting of dark red, liquid or clotted blood and by fainting. Either hematemesis or tarry stools may occur alone, or both may occur, whether the ulcer is in the stomach or duodenum. In this series, eight cases had tarry stools without hematemesis. Tarry stools may not occur for some time after the hemorrhage, although, if it is severe, unchanged blood may be noted in the stool. Shock often follows a severe hemorrhage with a marked fall in blood pressure, increased pulse rate, cold and clammy perspiration, marked pallor, dizziness, marked weakness, headache and faintness. The extent of the hemorrhage, in the early stage, cannot be judged by the blood count because the loss in R. B. C. and hemoglobin is not evident until the lost volume of the blood is restored by fluids from the tissues.

#### Hemorrhage in Peptic Ulcer Experience During Ten Years at St. Mary's Hospital

From 1928 to 1937, 331 cases of Peptic Ulcer were treated:

No. of Cases Treated	331
No. with Hemorrhage	66
Per Cent with Hemorrhage	20%

No. of cases of Peptic Ulcer and of Hemorrhage listed annually:

Year	No. of Cases Duod.	Gast.	No. with Hem.
1937	25	3	9
1936	39	7	4
1935	27	—	3
1934	30	4	10
1933	24	4	3
1932	29	10	10
1931	24	7	6
1930	18	7	9
1929	24	5	5
1928	35	9	7
Total	275	56	66

#### Analysis of the 66 Hemorrhage Cases

Sex	Age Groups	No.	Nationality
Male 52	1-10	0	Irish 44
Female 14	11-20	2	Italian 14
	21-30	12	Hebrew 6
	31-40	22	Greek 1
	41-50	13	Danish 1
	51-60	11	
	61-70	6	
	Total	66	

#### Type of Ulcer

Duodenal—51—Two patients had both G.U. and D.U.

Gastric—7—In 10 cases G. I. Series were not done.

#### Type of Treatment and Mortality

Dr. D'Albora's cases (Dr. Andresen's method) 53; mortality 2—This includes 1 case that died of pneumonia.

Other private cases 13; mortality 2.

#### Mortality Cases

1. N. A.—male—53—expired on the 3rd day. He was a readmission. He had signed his release several weeks previous because he refused surgery which was advised for partial pyloric obstruction. He was given a transfusion of 150 c.c. on the 2nd day.
2. M. P.—male—43—expired on the 13th day. This patient had developed lobar pneumonia. He was

given two transfusions, 110 c.c. on the 9th day and 150 c.c. on the 12th day.

The corrected mortality is really one in 53 cases; giving a mortality percentage of less than 2 per cent.

#### Duration of Ulcer Symptoms

No previous history	8
1-6 months	7
7 months-1 year	3
1-5 years	29
6-10 years	10
11-15 years	5
16-20 years	3
40 years	1

Total 66

#### Stay in Hospital

1 week	5
2 weeks	17
3 weeks	19
4 weeks	9
5 weeks	5
6 weeks	5
8 weeks	2
9 weeks	1

66

#### No. with Previous Hemorrhage

No previous hemorrhage	54
One previous hemorrhage	12

#### Melena Occurred in All the Cases

Melena without hematemesis	9
Melena with hematemesis	57

#### R.B.C. Count and Hemoglobin

Lowest	1,100,000—20% hem.
This case recovered.	
	1,450,000—14% hem.
Case expired—developed pneumonia.	
Highest	4,120,000—82% hem.
Average	3,100,000—59% hem.

#### Transfusions

Were done in 11 cases.

Three patients had 3 transfusions.

Three patients had 2 transfusions.

Five patients had 1 transfusion.

In cases with R.B.C. of less than 2,000,000 small transfusions (150 c.c.) were given about the 3rd day—and repeated in several days if necessary. This was done not to replenish blood lost but to promote coagulability. Otherwise transfusions were given after the 10th or 15th day, and only to shorten convalescence. In these cases 250-350 c.c. were

given.

#### Test Meals

Done after the 10th day.

High curve	15 cases
Moderate	4 cases

#### X-Ray

Time when done.

Longest period	1 month
Shortest period	7 days
Average time	14 days

#### Surgery

Was performed in 1 case—for pyloric obstruction. Case recovered.

#### Treatment of Hemorrhage

##### Complicating Peptic Ulcer

##### Indications for Treatment

1. A clot must be permitted and encouraged to form at the site of the bleeding.
2. The blood pressure, lowered as a result of hemorrhage, must not be raised so suddenly as to blow out the clot.
3. Shock must be combated, but not overtreated; too much stimulation often resulting in hemorrhage.
4. The digestion of the edges of the exposed blood vessel wound, by the gastric juice, must be prevented if possible.

#### Outline of Routine in Cases of Hemorrhage

1. Keep patient in bed—absolute rest, mental—physical. Frequent or extensive examinations not desirable. Morphine by hypo every 4 to 6 hrs. as indicated. Keep patient warm—apply external heat—no ice bag.
2. Gastric hemorrhage diet:

#### Formulas for Feedings

##### Gelatin solution:

Gelatin	1 ounce
Dyno or lactose	3 “
Juice of 1 orange	
Water	32 “

##### Gruel mixture 1:

Cereal gruel (oatmeal, barley or corn-meal)	6 “
Milk	24 “
Cream	2 “
Dyno or lactose	3 “

##### Gruel mixture 2:

Cereal gruel (oatmeal, barley or corn-meal)	12 “
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TABLE SHOWING MORTALITY RATES OF HEMORRHAGE FROM ULCER  
GIVEN BY AUTHORS

Author	Place	Cases	Deaths	Rate	Treatment
Aitken .....	London .....	255	28	11%	Starvation—ice to mouth—adrenalin by mouth. Trans.—Surgery in 21 cases with 7 deaths.
Allen & Benedict .....	Boston .....	128	20	14.5%	12 Cases had medical care (what kind not given, except that transusions were done). Surgery done in 8 cases—all died.
Bulmer .....	Birmingham, 1902-1931.....	578	62	10.7%	M.S.—starvation—rectal salines. Frequent trans. Surgery in 2 cases—both died.
Burger & Hartfall .....	Guy's Hospital, 1921-1930.	137	30	22%	M.S.—rest—starvation for 24 to 48 hrs. Rectal glucose and saline—surgery in 20 cases—12 deaths.
Chiesman .....	St. Thomas .....	191	48	25%	M.S.—rest—starvation—rectal salines. Alkalies by mouth—transfusions.
Crohn .....	Mt. Sinai .....	101	4	4%	Starvation for 3 days with continuous intravenous drip of 5% glucose.
Crossan .....	Episcopal .....	73	11	14%	Bland and frequent feedings. Adrenalin m. x—1-1000 sol. into stomach.
Cullinan & Price .....	St. Barth., 1925-1929.....	105	19	18%	Starved 24 hrs.—36 cases—9 recurrences. Starved 48 hrs.—11 cases—5 recurrences. Fed at once—10 cases—1 recurrence.
Davies & Nevins .....	St. Thomas, 1924-1933.....	391	32	21%	M.S.—starvation—rectal salines—transfusions. Surgery in 6 cases with 5 deaths.
Goldman .....	San Francisco .....	349	39	11%	Rest—M.S.—starvation—transfusions.
Hellier .....	Leeds, 1926-1932 .....	202	26	13%	M.S.—starvation—ice to mouth. Surgery in 4 cases with 3 deaths.
Hinton .....	Bellevue, 1911-1930 .....	52	10	20%	Starvation—infusions—transfusions. There were 4 surgical deaths.
Hurst & Babey .....	Guy's, 1919-1935 .....	82	4	4.8%	Rest—M.S.—starvation—saline by rectum or vein.
Lynch .....	Canada, 1917-1926 .....	31	4	13%	M.S.—rest—starvation for 48 hrs. Ice to mouth—ice bag to abdomen.
Meulengracht .....	Copenhagen .....	251	3	1.2%	Early frequent feedings—rest—M.S.
Paterson .....	London .....	100	4	4%	Starvation for 4 days—ice bag to abdomen.

Milk	28	"
Cream	4	"
Lactose or dyno	4	"

First and second days—Gelatin solution, 4 ounces—Feedings every 1½ hours.

Third day—Gelatin solution, 4 ounces, Gruel mixture 1, 4 ounces (alternating)—Feedings every 1½ hours.

Fourth day — Gelatin solution, 5 ounces, Gruel mixture 1, 5 ounces (alternating)—Feedings every 1½ hours.

Fifth and sixth days—Gelatin solution, 6 ounces, Gruel mixture 2, 6 ounces (alternating)—Feedings every 1½ hours.

Seventh and eighth days—Gelatin solution, 6 ounces, Gruel mixture 2, 6 ounces (alternating)—Feedings every 2 hours. In addition, patient may have soft poached egg, custard or jello.

Ninth day and thereafter—Ulcer Diet.

3. Type blood of patient—get donors for transfusion so as to be in readiness for transfusion if necessary.
4. Blood transfusion is not given until after first week, unless especially indicated by air-hunger or a very weak pulse.
5. R.B.C. count and hemoglobin should be taken every two days.
6. Blood coagulation time and bleeding time should be determined every 2 or 3 days, especially before and after transfusion.
7. Coagulant to be given intramuscularly and repeated every 6 or 8

hours as indicated.

8. No laxatives or enemas for three days. On the fourth night, order a warm oil enema, 4 to 6 ounces, to be retained in the rectum—a low saline enema is given the next day if necessary.
9. Stools to be tested for occult blood daily until this disappears.
10. Lextron—3 capsules t.i.d.—or fe & amm. citrate gr. xxx t.i.d. is given to combat secondary anemia.
11. After 10 days to 2 weeks in bed, begin a complete gastro-intestinal study.
12. Later, removal of foci of infection.

### Conclusions

1. In our cases, the incidence of hemorrhage in D.U. and G.U. is about 22 per cent and 15 per cent respectively. 20 per cent for both types, together.
2. The mortality rate for this group of cases is 2 per cent.
3. Review of literature and analysis of our cases show that best results are obtained by the use of early and frequent feedings.
4. Enforced rest—physical, mental and gastric, is essential.
5. Blood transfusion and infusions should not be given routinely.
6. Shock must be avoided; when present, must not be overtreated.
7. Surgery should be avoided during or soon after the hemorrhage.



### References

- Aitken, R. S., *Lancet*, 1-839, 1934.  
 Allen & Benedict, *Ann. of Surg.*, 98-736, 1933.  
 Bulmer, E., *Lancet*, 2-720, 1932.  
 Burger & Hartfall, *Guy's Hosp. Reports*, 84-197, 1934.  
 Chiesman, *Lancet*, 2-722, 1932.  
 Crohn, *Affections of Stomach*, W. B. Saunders, 1927.  
 Crossan, *Surgical Clinics of North America*, April, 1936.  
 Cullinan & Price, *St. Barth. Hosp. Reports*, page 185, 1932.  
 Davies & Nevins, *British Med. Jour.*, 2:858, 1934.  
 Goldman, *J.A.M.A.*, 107-1537, 1936.  
 Hellier, *Lancet*, 2-1271, 1934.  
 Hinton, *Annals of Surgery*, 93:844, 1931.  
 Hurst & Babey, *Guy's Hosp. Reports*, 16:129, 1936.  
 Lynch, *Canadian Med. Asso. J.*, 17-677, 1927.  
 Meulengracht, *Lancet*, 2-1220, 1935.  
 Paterson, *Proc. Royal Society of Medicine*, Vol. 17, 1924.

27 EIGHTH AVENUE.  
 405 LINWOOD STREET.

## DEHYDRATION AND FLUID BALANCE AS APPLIED TO

## *Obstetrics*

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IN the time allotted to this paper it is impossible to discuss in detail this interesting subject and its many ramifications. That it is possible to carry a toxic case, in any stage of development, to a successful conclusion without "pushing" fluids or without the use of morphine, is in itself engaging.

Actually, the procedure hereby presented is not new. The facts have been known for years. Their application has been appreciated by neurologists for some time, and the basic information on which this treatment depends was demonstrated in the laboratory some years ago. As far back as 1919 a decrease in cerebral pressure was noted from the use of hypertonic solutions and a few years later Rowntree proved that the ingestion of enormous amounts of water produced irritation, twitching, convulsions and stupor, followed by respiratory failure. Other investigators have confirmed this and Kubil found that these symptoms would not occur if the spinal canal was continually drained. The neurologists and neurosurgeons have noted the same nervous syndrome, in their patients suffering from the cerebral edema ("wet brain") of alcoholism and epilepsy, as we see in pre-eclampsia and true eclampsia. They have developed from these points a definite technique for dehydrating these brains with marked control of the cerebral symptoms. The stupor, irritation, convulsions and twitchings have been stopped.

Read before the Associated Physicians of Long Island at St. Mary's Hospital, Brooklyn, N. Y., January 29, 1938.

With all these things in mind an attempt was made at Temple University to apply these facts to toxemic obstetric states. That the pathology of the brain is the same was shown by Plass in 1923, who found all autopsied eclamptics to have cerebral edema. Clinical results have been extremely gratifying but really conscientious effort and watching are necessary to carry out the steps and get the desired result. The claim is made that these different types of toxemia merely represent variations in the severity of the retentive state and by increasing the intensity of dehydration all types are amenable to treatment. In other words the toxemia of pregnancy is merely a pathologic retention of fluid from some unknown cause. Following the report of Arnold and Fay in *Surgery Gynecology and Obstetrics*, in August, 1932 the medical and obstetrical services of St. Mary's Hospital decided to use this method in all their toxic obstetric states and the results have been most gratifying. Remember what we attempt to do: stop the cerebral symptoms—coma, convulsions, irritability, apprehension, and do away with the edema and lower the blood pressure. This can be done with surprising ease by:

1. Balancing fluid intake and output
  2. Spinal drainage where necessary
  3. Bowel fluid elimination
- without
1. Morphine
  2. Venesection
  3. Quiet rooms and protection against irritation

This method does away with the old elusive toxin and by getting at the base of the condition obviates the necessity of lessening or withdrawing all external stimulation and of deadening the patient's reception of stimuli by morphine, as introduced by the Stroganoff Treatment. Likewise, protein is allowed and

# CHART I

R. J.—age 19—Gravida I—Para 0—  
Case No. 20844.

- C. C. 1. Blurring vision  
2. Spots before the eyes  
3. Edema of the feet  
4. Dizziness

*Saint Mary's Hospital  
Brooklyn, New York*

5. B.P. 202/130

6. Epigastric pain

Within three days this patient's symptoms had entirely disappeared and her blood pressure had dropped to normal.

Note the small amount of fluid this woman was able to metabolize.

DEPARTMENT OF OBSTETRICS

*Toxemia  
Chart*

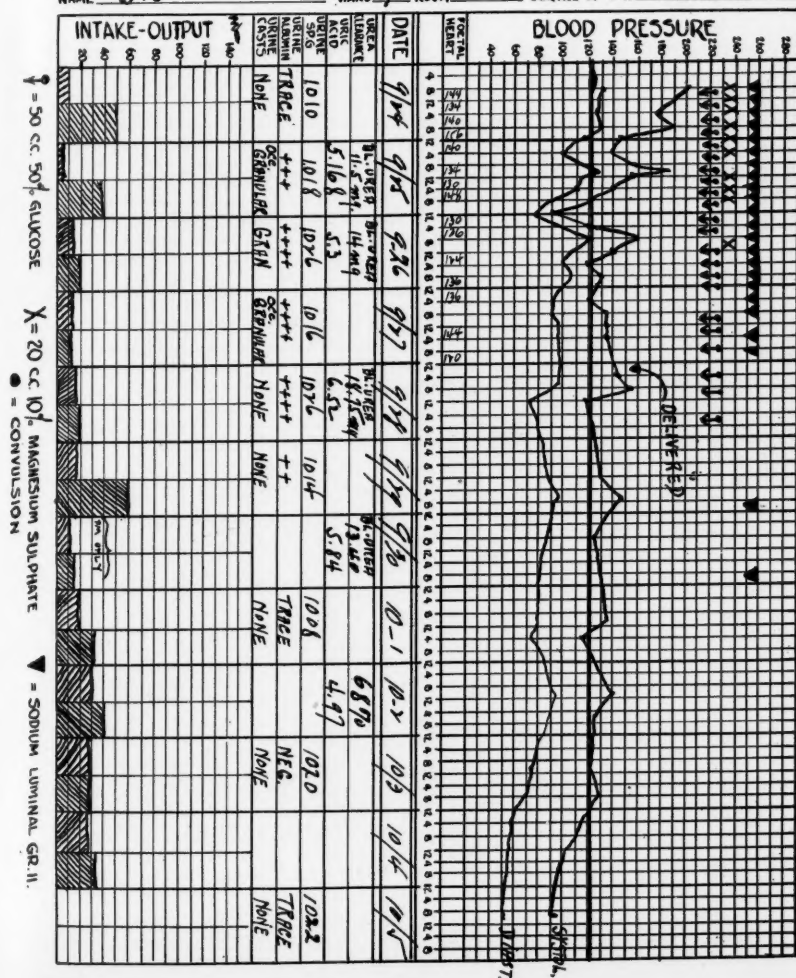
CASE NO. 20844

ADMISSION DATE 9/24/36

NAME B. J.

WARD 7 ROOM

SERVICE OF DR. LOUGHRAN



## CHART II

- E. K.—ag. 27—Gravida II—Para I—No. 8143.
- C. C. 1. 8 Convulsions
2. Marked cyanosis
3. Extreme excitability—requiring restraint
4. Marked edema of the extremities
5. 6½ months pregnant
6. 2 Spinal taps
7. Albuminuric retinitis
8. B.P. 180/120
9. CO<sub>2</sub> Combining Power 18

*Saint Mary's Hospital  
Brooklyn, New York*

CASE NO. 8143

ADMISSION DATE 5/24/34

NAME E. K.

WARD 2 ROOM

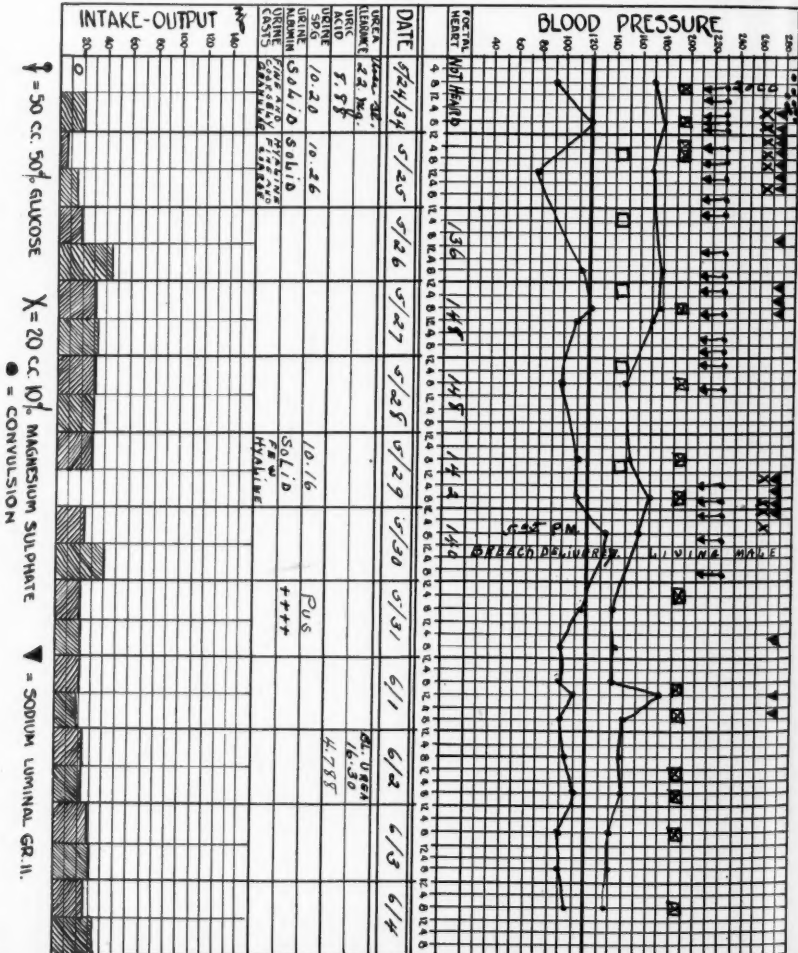
SERVICE OF DR. LOUGHRAN

DEPARTMENT OF OBSTETRICS

### Toxemia Chart

10. ON MEDICAL ADVICE PLENTY  
OF FLUIDS WAS FORCED ON  
THIS INDIVIDUAL

Note—This case, an extremely severe eclamptic, had her excitability and convulsions stopped by spinal tap. The general condition of the patient improved, so that she was clear and restful, and her B.P. came down to 148/98 and then because of a return of headache and a slight rise in pressure she was induced by bagging and delivered of a living child.



# CHART III

E. O'H—age 35—Gravida II, Para 0  
— Case No. 25540.

- C. C. 1. Eyes poor, visual disturbance for 5 weeks; she is practically blind
2. Marked edema of the legs and face
3. Headache

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Brooklyn, New York

4. B.P. 260/130 on admission
5. Substernal pain
6. Patient unduly apprehensive

In this case morphine was given for restlessness.

Prolonged stay in the hospital was due to a septic sore throat.

B.P. and symptoms were normal on the 4th day in the hospital.

## DEPARTMENT OF OBSTETRICS

Toxemia  
Chart

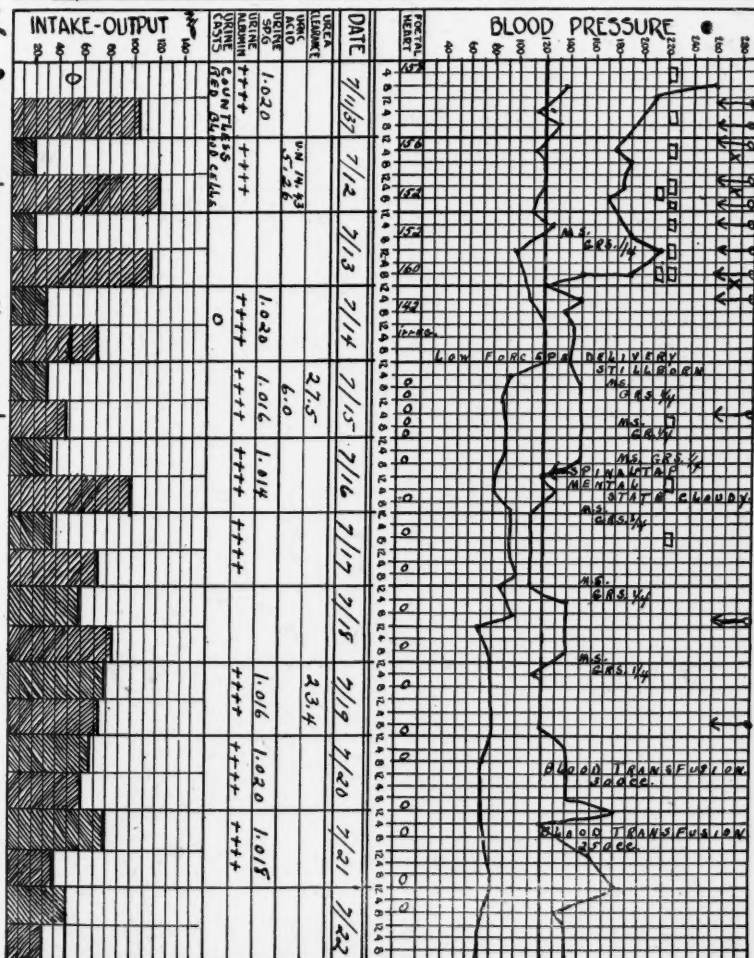
CASE NO. 25540

ADMISSION DATE 7/4/37

NAME MRS. E. O'H.

WARD 8 ROOM

SERVICE OF DR. ABBENE.



□ = 50 cc 50% GLUCOSE  
X = 20 cc 10% MAGNESIUM SULPHATE  
● = CONVULSION  
▲ = SODIUM LUMINAL GR. II.

# CHART IV

M. G.—age 38—Gravida I—Para O—Case No. 18897.

1. Edema three weeks before admission
2. Fatigue and swelling of the ankles
3. She didn't know she was pregnant
4. Convulsions on admission
5. Required marked stimulation and artificial respiration to bring her out of her convulsion

**Saint Mary's Hospital**  
Brooklyn, New York

6. Cyanosis of ears

7. Lumbar puncture, 40 c.c. removed

8. Out of coma the same day, with a drop in B.P. from 196—150

Note—This case was treated with glucose and mag. sulph. by vein, lumbar puncture, sodium luminal. Delivered of a still-born on the 4th day of hospitalization after having had four convulsions and been in coma on admission.

DEPARTMENT OF OBSTETRICS

**Toxemia**  
Chart

CASE No. 18897

ADMISSION DATE 5/30/36

NAME MRS. G.

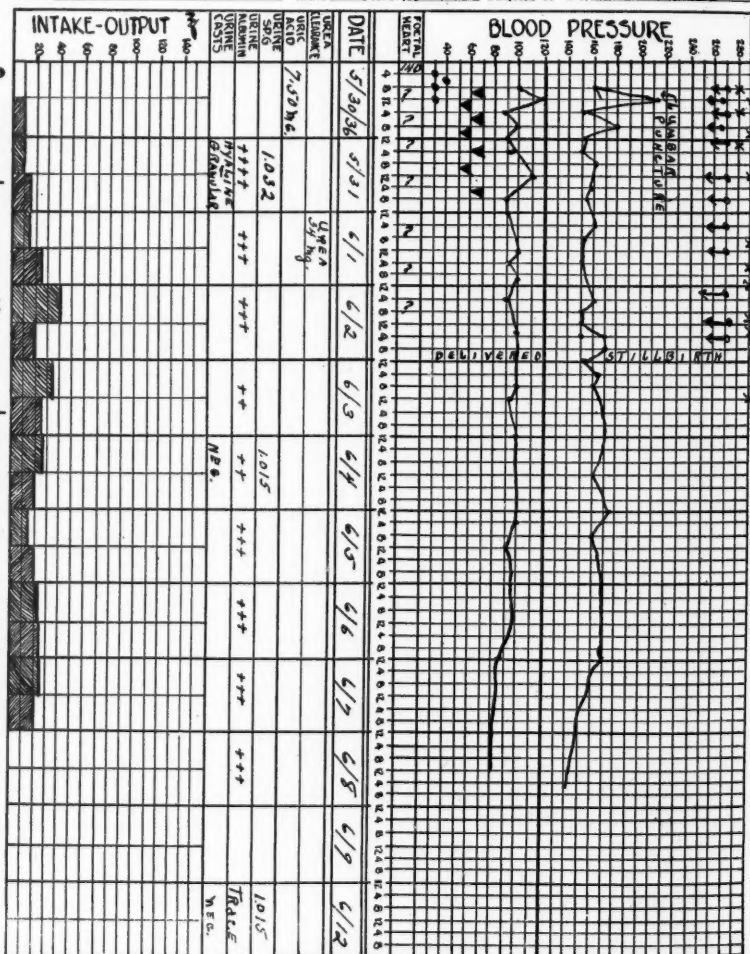
WARD 4-26 SERVICE OF DR. FITZGERALD

↑ = 50 cc. 50% glucose

X = 20 cc. 10% magnesium sulphate

● = CONVULSION

▼ = SODIUM LUMINAL GR. II.



only salt and concentrated sugars withheld.

It is important here to state that real hypertension cases from causes other than toxemia and cases that are not due to cerebral edema are not benefited by dehydration and, of course, the reason is self evident; but the hypertensive that has, on top of this, a fluid retention, will have her excess pressure cared for, and reduced to her normal. We see many cases in which this is important and permit many cases to be carried to the period of viability without endangering the patients' lives.

To save time I will present a few cases that will show what is done and how the patient reacts.

#### CASE I—Pre-eclamptic type (moderate)

This case represents the individual who progresses favorably in the course of her pregnancy, gains weight suddenly, shows edema, headache, irritability, nervousness, rise in blood pressure, and albumin in the urine. Any of these symptoms may be more severe than others but they are a real cause of apprehension and call for definite treatment. This type of case was previously put to bed, given great quantities of fluid to dilute and eliminate an indefinite toxin, was given a salt-free and protein-free diet and sugary fruit juices given in abundance—or worse, she was put to bed and given copious quantities of milk and water only.

Mrs. V. R., age 35, gravida 4, para 3, white woman in normal health except that she weighed only 99 lbs., was seen by me June 26th, 2½ months pregnant. Her B.P. was 132/100 and her urine negative. She had had three previous pregnancies, the first ending in premature labor at 6½ months, the second was normal and the third was normal except for marked edema of the ankles. Her deliveries were all normal under my care here at St. Mary's Hospital. She progressed favorably in this pregnancy so that on August 16th her blood pressure was 138/80 and the urine showed a very faint trace of albumin. On October 8th her weight was 118, a gain of 17 pounds, B.P. 130/100 with a trace of albumin. November 6th there was a faint trace of albumin with a B.P. 148/110 and she complained of being markedly nervous and had severe headaches, dizziness and spots before her eyes, but no edema. She was put to bed and told to restrict her fluids. This she did not do, in fact to the contrary, and on November 22nd the B.P. rose to 172/90 with a weight of 124½, a gain of 23½ pounds since the onset of pregnancy. She also had a marked edema, some headache, and slight eye symptoms. She was now put on active dehydration. No fluids were allowed for 24 hours and the output was measured. The following day she was allowed only 5 ounces less than her previous output. Active catharsis was started with saturated solution of magnesium sulphate. On November 24th, after two days, the B.P. had dropped to 158/100. Urine was negative for albumin. She then remarked that she had for a long time been passing only very small amounts of urine. All salt in her diet was stopped. The normal amount of protein was allowed and as she was not passing much fluid by kidney, concentrated sugars and sweets were stopped. On November 26th her B.P. was 148/110 and on November 30th it was further reduced to 140/90. She now felt fine, her headaches had stopped, edema had disappeared and urine was nega-

tive. Dehydration was continued at her own request as she felt better than she had in any other pregnancy. On December 2nd the B.P. was 138/88 and the urine on December 7th showed a trace of albumin. Her output was only 13 ounces of urine and the intake 12 ounces. As she progressed her B.P. varied from 138 to 146 systolic and her output increased to 18 ounces daily. On December 23rd she was admitted to St. Mary's Hospital at term and delivered of twins spontaneously. The patient was discharged January 6th with a B.P. 130/80; blood chemistry showed urea nitrogen 11.35 mg., uric acid 4.704, sugar .082. While in the hospital in labor her B.P. rose to 150/100 and gradually decreased to 130/80.

This case demonstrates the effect of fluid balance on the individual that is threatening serious difficulty. Here was a case with a B.P. of 172 with marked edema, severe headache, dizziness and a small amount of albumin. This is the individual that goes on to a true eclampsia if left untreated. The case showed that by ingestion of fluids the B.P. was raised to a dangerous height. The patient herself noticed that she was retaining fluids. Again, she was quick to notice her improvement on fluid balance and restriction and asked that she be kept on the routine. It also demonstrates how little fluid these people need to get along well. This woman went weeks, in the last part of her pregnancy when the demand was greatest, on only 12 ounces of liquid a day—not only water, all liquid, and in the last weeks she put out 18 ounces a day. It is to this type of case that the greatest good can be done, for I honestly believe that eclampsia can actually be prevented and by a very simple expedient.

#### CASE II

(See Chart I) S.M.H. #20844. B.J., age 19, para 0, gravida I. Admitted to my service from the ambulance, having had no prenatal care and complaining of blurring vision, inability to read, severe headache, epigastric pain, "spots before her eyes", dizziness, and marked edema of the feet. Her B.P. was 202/130. She was approximately two weeks before her expected date of confinement. The urine was positive for albumin and the patient appeared severely sick.

Passing over the general examination and history, except as above quoted, we proceeded to treat this woman. Her fluids were immediately restricted, in this instance to 10 ounces. Her output of urine and stool was continuously measured and recorded. Her diet permitted a normal amount of protein, only salt and concentrated sugars by mouth being eliminated. She was placed on sodium luminal gr. 2, subcutaneously every 4 hours, 20 c.c. 10 per cent magnesium sulphate solution by vein every 4 hours, alternating with 50 c.c. of 50 per cent glucose by vein every 4 hours. She was given mag. sulph. by mouth to free purgation. On the first day her urine showed albumin and a specific gravity of 1010. By midnight of the same day her pressure had dropped to 140/100 and she became more restful and looked better. Her morning pressure was 140/100. The glucose by vein was continued but the mag. sulph. was omitted and this was followed by a prompt rise to 188/126. The latter was immediately resumed and by the second midnight her pressure had dropped to 92/76. The magnesium sulphate was then discontinued by vein, followed by a rise to 158/118. Her laboratory report showed a blood urea of 11.5 and uric acid 5.168, and a urinary specific gravity of 1018 with 3+ albumin and an occasional cast. The next day the blood urea was 14 mg., uric acid 5.3, and the urine showed a specific gravity of 1026 with a 4 plus albumin and granular casts. Her pressure then remained between 138/100 and 120/90 until delivery on the 5th day of hospitalization. She was delivered by low for-

ceps rotation, L.O.P. to L.O.A., with episiotomy. Shortly after delivery the B.P. was 150/108 and one intravenous injection of glucose was given. Thereafter the B.P. ranged from 120/80 to 108/80 on discharge. On the day of delivery the blood urea was 18.75, uric acid 6.52, urine specific gravity 1026, and the urine showed a 4 plus albumin with no casts. This state of affairs gradually returned to normal, so that her urea clearance was 68 per cent of normal with a uric acid of 4.97 on the last report, and all urines in the puerperium showed no albumin or casts. This woman's fluids were balanced in her puerperium so that she was on a 25-ounce intake and output.

Here we had a much more severe type than in the former case. She was promptly dehydrated, but her symptoms, while alarming, were not such that it was deemed advisable to do a spinal drainage. She improved immediately. In fact her symptoms had cleared up entirely on the fourth day of hospitalization.

### CASE III—Eclampsia

(See Chart II) E.K., age 27, gravida II, para I. Admitted to my service by ambulance May 24th. Her last menstrual period was November 19th and the expected date of confinement August 26th. She had had no prenatal care.

Present History: Patient is six months pregnant. She was well until several days ago, when she felt weak. A doctor advised plenty of fluids and bed rest. This a.m. at 2:00 o'clock she awoke complaining of headache and epigastric pain. At 5:00 a.m. face became distorted, blue, and she writhed in convulsion for 10 minutes. She had five convulsions between then and admission at 7:05 a.m.

On first examination she was wildly excited, and required restraint. There is marked edema of the extremities and deep stertorous breathing. Abdominal examination reveals her to be pregnant about six and one-half months; temperature 100, pulse 108; fetal heart not heard as she was wildly tossing about. A severe convulsion with cyanosis occurred directly after admission and two more two hours later. She was given morphine sulphate gr.  $\frac{1}{4}$  on admission and Arnold and Fay treatment started. Her blood urea was 22 mg., uric acid 8.88, urine specific gravity 1020, urine albumin boiled solid with fine and coarsely granular casts. Cos combining power 18.

Fluids now immediately stopped except as intravenous vehicles. Glucose 50 per cent (50 c.c.) intravenously every 4 hours, alternating with 20 c.c. of magnesium sulphate (10 per cent) by vein, every 4 hours. As she was too excited to swallow mag. sulph., colonic irrigations were used to get rid of fluid stool for the first day. As the symptoms did not improve, the spinal canal was tapped twice in the late afternoon. The first time 15 c.c.

and the second time 45 c.c. were withdrawn under pressure. Following this procedure her pressure dropped to 170/110 from its high of 180/120. No convulsions followed the spinal tap and the patient became quiet and dropped off in a restful sleep. The above regimen was kept up for 52 hours and her pressure was maintained at 158/98. She was mentally clear and her appearance was excellent. Fetal heart 148. The frequency of intravenous medication was decreased and the magnesium sulphate intravenously was stopped. The eye department reported the fundi normal. All medication was discontinued on the fourth day, fluid balance only being maintained. Toward the end of the fifth day, the patient became slightly excited and irritable with slight confusion and her B.P. rose to 170/110 with a slight headache. Her general condition was excellent, and in view of the above symptoms it was felt that an induction of labor could be done without jeopardizing the patient's life. On May 29th at 11:00 a.m. a Voorhees' bag was inserted (extra-ovular) under G.O. anesthesia. The bag was expelled at 4:00 p.m. and one hour later the membranes ruptured and a living male child was delivered by breech. During this period dehydration treatment was intensified, but at no time did she require a spinal tap.

She improved rapidly, her B.P. gradually falling, and all dehydration therapy except fluid balance was discontinued the day after delivery. On June 3rd, three days after delivery, she complained of blurring vision in the left eye. Doctor Steinbugler then reported a left optic neuritis with a hemorrhagic retinitis.

She continued to improve and was discharged June 16th with a blood urea of 16.30, uric acid 4.788, but still showing albumin and some casts. All symptoms were absent except some blurring vision.

This is the type of toxemia that we all fear, but here a definite benefit can be seen, in that her convulsions were stopped, her nervous symptoms cleared up, the edema disappeared and she was put in such condition that she was physically able to stand an induction of labor. At other times we would fear to attempt any accouchement forcé in the face of a toxemia that was being treated only from a symptomatic point of view.

If these facts and these results do no more than stimulate great interest in the possibilities of treatment by this method, we here at St. Mary's will feel that you ultimately will attempt this form of therapy to your own and your patients' satisfaction.

277 PARK PLACE.

## Brucellosis:

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Brooklyn, N. Y.

**B**RUCellosis is the most recent and satisfactory name applied to what has been called Malta, Mediterranean

## CASE REPORT

and undulant fever—descriptive names that in the light of our present knowledge do not apply. Brucellosis is not confined to any part of the world, and undulant fever is only one type of brucellosis. In addition to the rapidly grow-

ing importance of this disease, the reason for the presentation of this case lies in the fact that it covers practically all of the varieties, much of the symptomatology and most of the therapy.

Mr. M., age 46, well developed, well nourished and organically sound, entered the hospital on December 17, 1936 with a fever of undetermined origin, but with symptoms suggesting brucellosis, and a blood count in a febrile patient showing a leucopenia of 5050 white cells. Upon examination blood cultures were negative. Agglutination was positive—dilution 1/640. The skin test with *Brucella melitensis* vaccine was positive. X-rays of heart and lungs and a G.I. series were made. The G.I. series gave findings that explained intense abdominal pain and obstipation. The other x-ray examinations were negative for findings.

On December 24, 1936 the patient returned home and there received a series of vaccine therapy. (*Brucella melitensis* vaccine—Lederle.) On May 4, 1937 patient was again hospitalized, entering the hospital with brucellosis, causing—

- 1.—Thrombopenic Purpura
- 2.—Cervical Abscess
- 3.—Hepatitis.

Let us go back now to his history before admission to the hospital. In the summer of 1936 he was at a farm in the northern part of this state—the cows there had all been tested for *Br. melitensis* and were negative. In mid-September, 1936 he had a chill, with no symptoms or indisposition following. His first indisposition was on November 6, when he felt "grippy," and he continued to feel that way until his visit to the doctor on November 11, at which time his temperature reading was 103. He claimed to have little subjective discomfort. He was ordered home and to bed, and there he remained from November 11 to December 17. For the first week his temperature remained above 102 F. Thereafter his evening temperature was in the neighborhood of 101, with normal temperatures in the morning. This condition continued until December 20, when his temperature became normal, night and morning. During all of this time he had sweats, insomnia and constipation. He had never previously been constipated. Physics gave him violent cramps, and despite the liberal use of cathartics he developed an impaction. He had tenderness over his descending colon. During the intervals when free from these pains he appeared comfortable and not very sick. His urine specimens had been consistently normal. His blood count, taken on Nov. 25, showed leucocytes 5050, neutrophils 61, rods 6 and segments 55. His red cells were 4,600,000 and his hemoglobin was 92%. He had a pharyngitis, rhinitis and gingivitis, with an occasional and small amount of blood from his posterior and anterior nares. There was a faint cyanosis to his skin.

Following his return home on December 24 he received at three day intervals *Brucella melitensis* vaccine (Lederle), killed by heat following the technique of Simpson—two 0.25 cc. doses, two 0.50 cc. doses, and repeated injections of 1.0 cc. until eight cc. in all were given. The last injection of one cc., the third full dose from the second vial, provoked so violent a reaction that further injections were discontinued, but thereafter, whenever taken, his night and morning temperatures up to May 4 were normal.

When again seen on April 23, 1937, he had a large, hard, non-fluctuating swelling of a left cervical gland, but was without fever. There was a slight systolic blow at his apex. His liver was enlarged four fingers below the free border. He

was markedly jaundiced and his urine contained bile. His spleen was slightly palpable. On May 4 there was evidence of fluctuation in the left cervical gland and a moderate fever. On this day the patient entered the hospital for the second time. For sixteen hours before admission there was a slow discharge of blood from his left nostril.

Incision and drainage of the cervical abscess was done by Dr. Thomas Brennan on May 5, 1937. General oozing from the wound was difficult to control. On May 8, patient was taken to the operating room to control bleeding. He had a platelet count of 30,000 and a CO<sub>2</sub> combining power of 35 per cent. On May 12, icteric index 38; van den Bergh direct—delayed reaction. His condition was at this time critical, and had been from May 8 to May 12. To raise his platelet count he received on two occasions deep x-ray therapy over the spleen, and there were blood transfusions of 300 cc. each given on May 8, 10, 12 and 15. On May 17, the platelet count was 90,000—on May 24, 75,000—on May 27, 120,000—on June 3, 126,000—on June 15, 135,000. On May 15 his CO<sub>2</sub> combining power was 41. He made a very slow convalescence, and left the hospital on June 17, with a platelet count of 135,000 per cm. He spent the summer in Denville, N. J., obeying the instructions to take rest, sunshine and a diet rich in vitamins, especially vitamin C. Upon his return, a blood examination made on September 10 showed a leucopenia of 3,900 and a platelet count of 131,000. He was ambulatory, afebrile, but was easily fatigued and occasionally had a drop or two of blood from his nasal mucous membrane. He also had the symptom complex of a neurasthenic. His spleen was still slightly enlarged; his liver while greatly reduced in size was still palpable below the margin of the ribs. His heart sounds were of good quality; the systolic murmur at the apex had disappeared; his evidences of jaundice were no longer visible; sclera was of good color and the urine specimens were normal, showing no evidence of bile.

# Comment:

WHERE this patient's infection was contracted is a matter of speculation. The incubation period is usually five days to three weeks. His first known illness was on November 6. It is within the realm of possibility that the condition was contracted from the milk on the farm and that the chill in mid-September was the first symptom of the condition. There are ambulatory types, with scarcely recognizable symptoms. However, it is more probable that the source of infection was closer to the period of active disturbance. There is enough "bootleg" milk entering the city to make this source a possibility. Cheese and raw meat are also sources—six to ten per cent of cattle are infected.

Unfortunately, the first platelet count was not made until his second admission on May 4. The early evidence of bleeding during the second week of his illness makes me believe that the platelet count was low from the beginning. His leucocyte count on Nov. 25 was 5050 and the significance of this was noted in the presence of the fever that he was run-

Read before the Associated Physicians of Long Island at St. Mary's Hospital, Brooklyn, N. Y., January 29, 1938.

ning. At the present writing, twelve months after onset, the patient's leucopenia is 3,900, with a platelet count of 135,000, and his nervous symptoms indicate that he is still in the throes of this disease.

LET us consider the therapy. We used vaccine therapy, blood transfusions, x-ray therapy over spleen, sulfanilamide, diet rich in vitamin C, letron, rest and sunshine. Rest seems very important. Each time that there was activity, symptoms of fever returned. Before his second admission he had practically resumed his normal activities. This, with the severe mental strain, was responsible for the complications noted.

**Sulfanilamide:** Culture from the cervical gland taken on May 5, 1937 showed non-hemolytic strep. Smear on the same date showed diplococci and streptococci. At this critical stage we employed sulfanilamide in full therapeutic doses for four days.

**Brucellosis Vaccine**—Lederle: The control of the fever was not accomplished until the violent reaction following the eighth dose. The progress of the disease was not stayed. I feel that typhoid vaccine would have served as well. Typhoid vaccine was not used, although it is frequently used and well considered. It was considered here, but the *Br. melitensis* vaccine was selected for use. At

the critical period a real help came from the x-ray treatment over the spleen and possibly from the blood transfusions. The platelet count was raised from 30,000 on May 8 to 120,000 on May 27, 1937.

The brucellergin test is negative if erythema alone is present. A negative test will usually rule out brucellosis. The brucellergin test is positive if in addition to an area of redness there is also edema or induration which measures from 0.5 to 7.5 cm. or more in diameter. A positive test means past or present infection. It does not indicate the patient's immune status, which may then be obtained by the opsonic test. A negative agglutination test does not rule out brucellosis. A positive agglutination test consists of complete agglutination in a titer of over 1-25.

#### Pathological Findings:

WHERE cases come to autopsy, the usual findings are enlarged spleen, swelling of the mesenteric lymph nodes, cloudy swelling in liver and kidneys—intestines show small area of congestion and swelling and edema of mucosa. Occasional ulcers are found in the colon. Contrary to what one would expect from the findings obtained in cattle, orchitis and seminal vesiculitis are infrequently found. The lungs show congestion and bronchial pneumonia.

#### References

1. Boyd, William: The Pathology of Internal Diseases, Philadelphia, Lea and Febiger, 2nd edition, 1935.
2. Engle, F. E.: Treatment of Acute and Chronic Brucellosis, J.A.M.A. 105:939-942 (Sept. 21) 1935.
3. Seville, W. B.: Prevalence of Mild Brucellosis Abortus Infection, J.A.M.A. 105:1976-1978 (Dec. 14) 1935.
4. Wherry, W. B., O'Neil, A. E., Foshay, L.: Brucellosis in Man—Treatment with a New Anti-Serum. Am. J. Trop. Med. 15:415-426 (July) 1935.
5. Evans, Alice C.: Public Health Reports, 52:1072-1077 (Aug. 6) 1937. Ibid. 52:1419-1427 (Oct. 8) 1937.
6. Gould, S. E., and Huddleson, I. F.: Diagnostic Methods in Undulant Fever, J. A.M.A. 109:1971-1974, Dec. 11, 1937.
7. The Cyclopedia of Medicine, edited by George Morris Piersol, Philadelphia, F. A. 1803 QUENTIN ROAD.



# MEDICAL JURISPRUDENCE

Edited by Gustave J. Noback, Ph.D.

Secretary of the Society  
of Medical Jurisprudence

THIS paper presents a survey of new admissions to the Elmira State Reformatory from May 31, 1935, to December 10, 1936. Since about the time the survey was begun the law has been in force that only persons convicted of a felony are to be admitted to this Reformatory, so that only six inmates considered in this survey were sentenced for misdemeanors.

The information for this survey was obtained from many sources: Probation reports, mainly from large centers; answers to questionnaires sent to parents, wives, other relatives, family physicians, school authorities, and employers, including the Army, the Navy, WPA, CCC, and social agencies; and statements of the inmates themselves while in the "reception service" for one month. During that time physical and neurological examinations are made. The physical examination includes blood tests; in the neurological examination inquiry is made concerning the presence or a history of conditions that are considered of importance, especially syphilis, encephalitis, chorea, epilepsy, meningitis, poliomyelitis, serious head injuries accompanied by unconsciousness, headaches, dizzy spells or enuresis. The use of alcohol and habit forming drugs is also investigated. "The psychologists determine the mental age, grade achieve-

ments, mechanical aptitude and performance ability; when a group test points to borderline intelligence, feeble-mindedness or some unusual condition, such as reading disability, the group test is supplemented by an individual test." In many instances the information obtained "is incomplete and inaccurate, due to the negligence, indifference, deceit, ignorance, lack of insight of some informants." Often the information obtained has to be carefully scrutinized, as conflicting statements are obtained from different sources.

At the end of the inmate's month in the "reception service," all the information collected is forwarded to the

psychiatrist who in turn, after a personal interview with the inmate, condenses and interprets the information, formulates a diagnosis and attempts to make a prognosis; and also makes recommendations for treatment—assignment to a school or trade, etc. These psychiatric reports form the basis of this survey.

In the period covered by this survey 19.7 per cent of admissions were Negroes, a high percentage as compared with the population of the State, which is to be attributed to the recent arrival of many Southern Negroes in New York City, where they face new conditions of life to which adjustment is difficult.

While 547 inmates gave their religious affiliation as Catholic, 385 as Protestant, and 55 as Jewish, it was

## PRELIMINARY SURVEY OF 1000 CASE-HISTORIES OF INMATES OF THE ELMIRA REFORMATORY

**RENÉ BREQUET, M.D.**

Neuro-Psychiatrist  
Elmira Reformatory  
Elmira, N. Y.

### An Abstract

The original article was read before the Society of Medical Jurisprudence, April 12, 1937, at The New York Academy of Medicine, New York, N. Y.

JUNE, 1938

evident from the data obtained that few of the families and still fewer inmates had a regular affiliation with any church.

While little could be learned from the data obtained as to heredity, the figures compiled under "family integration" are of much significance. In nearly one-fourth of the cases (23.3 per cent) the parents are either separated or divorced; in 40.4 per cent one or both parents had died. These factors account for a large number of cases of early institutionalization and maladjustment. In 19.1 per cent there was a history of intemperate use of alcohol by one or both parents; and in 8.6 per cent a history of delinquency of one or both parents, including arrest for non-support, intoxication, disorderly conduct, and felonies. In 32.9 per cent of cases there was evidence of financial inadequacy, in the sense of "manifest poverty and evident lack of necessities." The factors mentioned were frequently combined in a single case-history. In considering all these factors, it is conservatively estimated that in nearly three-fifths of the cases (59.4 per cent) the families of the inmates were "dis-integrated." This does not include a number of families regarded as "normal," but in which the supervision of the children was inadequate; and others in which there was a deep psychological conflict in a family appearing outwardly to be well integrated.

The families of the inmates were large, averaging 4.689 children per family, not including children that had died; the largest family had 17 children; 24 of the inmates are illegitimate children, and in 10 others the legitimacy is questionable. Delinquency was most frequent in the first child of the family, 31 per cent of inmates being first children. In 243 families there had been arrests for minor and major offenses in siblings, totalling 330 individuals. In one family with 6 delinquent siblings, the father was sentenced for incest.

**T**HE average age of the inmates included in this survey is twenty years; about three-fifths of the population of this institution are between the ages of eighteen and twenty-one; although the legal age limit of commitment to the Reformatory is thirty years, there is a

sharp decline in the number of commitments of men after the age of twenty-three years. The majority of the inmates studied in this survey are single (87.2 per cent); 1.9 per cent lived in common-law relations; and 4 per cent have been divorced or separated. Seventy-three have 95 children; 9 are illegitimate; and the parents of 32 of the children have separated.

The intelligence quotients show that 10.1 per cent of the inmates studied may be classed as feeble-minded, *i.e.*, with an intelligence quotient below 71. In 9.5 per cent the IQ was above 110, indicating a "superior" intelligence.

A large number of the inmates have been truant in school; in some cases the child adjusted as far as he could follow his classes easily and then became truant; it is interesting to note that the mental age determined by psychological tests corresponded quite closely with the age of beginning truancy. A total of 399 had had a full grade school or higher education; another 358 had reached the 7th or 8th grade in elementary school. Only a small percentage of those who entered high school graduated; some left for economic reasons, but many against the advice of their parents and without any urgent economic pressure.

**SYPHILIS** was diagnosed by blood tests in 24 whites and 39 Negroes; only a few inmates had active gonorrhea on admission, but the inmates' statements indicated the incidence of gonorrhea in 95 whites and 69 Negroes, probably too conservative a figure. The total incidence of venereal disease is 19.1 per cent.

There was a history of habitual or occasional drunkenness in 307 cases; in 78 of these cases, the father was also intemperate. Data concerning drug addiction are based mainly on the statements of the patients themselves, but the impression is gained that drug addiction is not frequent among the inmates coming to this Reformatory and this is supported by the author's co-workers of long experience.

There was a history of previous arrests and commitments to juvenile institutions in 31.6 per cent; the average number of arrests was 3.093; 4 had been arrested twelve times. The sen-

tences for which inmates had been committed to the Reformatory were for burglary, robbery or grand larceny in four-fifths of the cases (79.2 per cent).

IN a study of these findings, the author concludes that the majority of the delinquents studied are "normal" psychologically; in these cases "it is deemed that outside influences, acute or continued over a long period of time, alone contributed to their psychological make up and resulted in anti-social behavior." Two hundred and thirty-one individuals were considered to be definitely psychopathic, including 4 of the feeble-minded. Ninety-seven were grouped as feeble-minded; the contribution to delinquency of this group is probably out of proportion to their number in the general population. The group with organic disease of the central nervous system is

small but interesting. In many of these cases, there is not only a definite history of trauma or toxic-infection, but also characteristic subjective and objective symptoms. In others there may be no definite neurological signs, but a history of trauma or disease followed by personality and behavior changes. Another small group—1 per cent—has been classed as "potentially psychotic," a diagnosis which, while not orthodox in formal psychiatry, is of value in dealing with delinquents who show a gradual change in personality, or a peculiarity of behavior that attracts attention.

The "prognosis" as to final adjustment of delinquents committed to the Reformatory depends upon many factors, as indicated by this study; the author estimates that 52.9 per cent of such delinquents will finally become satisfactorily adjusted.



## THE COMMON COLD

Explorers who have been to the Arctic Circle say that Eskimos go through the bleakest winter without colds, only to start sneezing and wheezing the first day a foreign steamer drops anchor in the harbor in the Spring. Colds are infectious, and are caused by specific germs or viruses. One could sit in wet clothes by an open window on a cold winter day and, if there were no cold organisms present, he would not catch cold. The chances are, however, that cold germs would be present. Most people carry a quota of them all the time. When their resistance is lowered by wet feet or exposure, they succumb to the germs or virus and "catch cold". It is, of course, the micro-organism which causes the cold, not the wet feet—C. L. Ulmer, M.D. and R. P. Fischelis, Phar. D. in *Journal of the Medical Society of New Jersey*, March, 1938.

## PREVENTION OF OBESITY

Obesity should be prevented because of frequent association with other diseases and because it can lessen human efficiency and shorten life.—C. H. Goodrich, M.D., in *New York State Journal of Medicine*, Jan. 1, 1938.

## INFANT MORTALITY

It can be properly assumed that most of the infant deaths occur during the first month of life, and that infant mortality is considered one of the most sensitive barometers by which measurements of the health of a community may be made. Anything that is done to decrease infant mortality must be done during the first month or certainly during the first year of infant life.—J. P. O'Brien, M.D. In *Rhode Island Medical Journal*, March, 1938.

## ELECTROSURGERY OF CANCER

Electrosurgery often enables the physician to demonstrate the truth of the slogan of the American Society for the Control of Cancer: "Early Cancer is Curable." In our present campaign against pessimism, apathy, fear, ignorance and stark despair, we may well fight cancer with knowledge. Not the least of this education needed, is knowledge of the possibilities of electrosurgery in the prevention and cure of cancer of the head and neck.—Edwin N. Kime, M.D. In *Archives of Physical Therapy*,

## Contemporary Progress

### + Neurology +

#### *Treatment of the Parkinsonian Syndrome*

R. F. GAYLE and J. N. WILLIAMS (*Southern Medical Journal*, 31:188, February, 1938) report the use of cobra venom in the treatment of the Parkinsonian syndrome in 18 patients. Most of these patients gave a definite history of an acute infectious disease that produced an encephalitis. The duration of the disease in these cases ranged from three to twenty years; in all the syndrome was progressive in character. Cobra venom was given chiefly because it has been found that, given by intramuscular injection, it relieves pain. In each case 0.5 c.c. of the venom was given intramuscularly the first day, and then 1 c.c. every other day for ten days. If no subjective improvement was noted in this period, treatment was discontinued. All other treatment was discontinued, or practically so, when the treatment with the cobra venom was begun. In those cases that showed improvement, the interval between the venom injections was gradually lengthened without causing an increase in the patient's symptoms. The most outstanding effect was the relief of pain in all patients who showed this symptom. Two-thirds of the patients also showed marked subjective improvement—diminution of muscular rigidity, ability to perform tasks that were previously impossible, improvement in attitudes, and mental improvement. The tremor, however, was not relieved. Most of these patients were able to discontinue the use of other medicines, scopolamine, stramonium and other antispasmodics, or materially reduce the dosage of these drugs. In the remaining third of the cases, no improvement was noted.

R. A. MATTHEWS (*American Jour-*

*nal of Medical Sciences*, 195:448, April, 1938) reports the treatment of 20 patients with the Parkinsonian syndrome of chronic encephalitis with benzedrine sulfate. In 15 of these 20 patients or 75 per cent, there was definite sustained improvement which must be attributed to the benzedrine, since no other change was made in the medical regimen; in one other case, there was some definite improvement, but as a change was made in the previous medication, this cannot be attributed to benzedrine alone. Oculogyric crises were controlled or diminished in 5 out of 6 cases showing this symptom. Thirteen patients showed a definite improvement in mood, becoming more cheerful and energetic. A lessening of rigidity and tremor has been observed in a number of the patients, but this has not been constant. In 4 cases, salivation was diminished. In 9 patients with previously low blood pressure, the systolic pressure has been raised 10 points or more; a gain in weight was noted in 7 patients. Doses over 40 to 50 mg. daily are not indicated, and in some cases the dose can be reduced below this, if there is evidence of any cumulative effect. Benzedrine, the author has found, enhances the action of stramonium, atropine and hyoscine in postencephalitic Parkinsonism, and "is best used in conjunction with these drugs."

#### COMMENT

These first two papers deal strictly with the treatment of incurable, chronic disease of the central nervous system. The purely empiric use of a medication often produces surprising results, such as the original use of physostigmine in myasthenia gravis on the supposition that it might antagonize a noxious substance at the myoneural junction. Further investigations of the value of this drug in myasthenia gravis have had far reaching effects, through the study of the transmission of nerve impulses concerned in muscular contraction.

We have had no personal experiences with the use of cobra venom. In the chronic disease known as Parkinson's syndrome it is interesting that this was first given because

it tended to relieve pain. The coincidental improvement of other symptoms in paralysis agians is likewise of interest. Perhaps further investigation of the side reactions of this medication may prove that it also effects some distinct benefit.

Benzdrine sulfate has been used in Parkinson's syndrome of the chronic encephalitic type for some time. Despite the repeated benefit reported by other experimenters this reviewer has noted no distinct improvement from its use in a series of cases. A certain proportion may show some temporary material improvement, particularly in the feelings of fatigue and exhaustibility. It might likewise help the tendency to abnormal drowsiness. Where these symptoms are not present we find the patients often remarking that "that medicine" did not do them any good.

H.R.M.

### Intraspinal (Subarachnoid) Injections of Vitamin B<sub>1</sub>

E. L. STERN  
(*American Journal of Surgery*, 39:495, March, 1938) reports the clinical use of intraspinal subarachnoid injections of synthetic vitamin B<sub>1</sub> in 28 patients after preliminary animal experiments. In the experiment on adult cats, it was found that vitamin B<sub>1</sub> could be safely given by cisternal puncture without causing meningitis or paralysis of the medullary centers, in amounts of

5,500 I.U. (international units) or 11 mg. of the preparation employed. The amount had a definitely stimulating effect on respiration and the sympathetic nervous system. Vitamin B<sub>1</sub> was excreted much more slowly after intraspinal than after intravenous injection. In human patients, synthetic vitamin B<sub>1</sub> was given intraspinal in the lumbar region "thoroughly barbo-

tagged with the spinal fluid." The initial dose was 10 mg. (500 I.U.); this was increased every fourth or seventh day, or more frequently in severe cases; the maximum dose should not exceed 100 mg. Doses over 20 mg. may cause severe fever, weakness, and stiffness of muscles, lasting for several hours to several days, but definite improvement in symptoms follows such a reaction. No patient developed any paralysis, anesthesia, or signs of meningitis following any of these injections. Spinal fluid cell counts were not appreciably increased. The pH of the spinal fluid was usually reduced; if it was above 8.5, treatment was pushed until it was reduced to about 7.0. It is inadvisable to

reduce the pH below the latter level, as restlessness and nervousness may result. The cases treated included 10 cases of inoperable cancer, one case of von Recklinghausen's disease, 2 cases of multiple sclerosis, 2 cases of intractable pruritus ani and vulvae, 2 cases of alcoholic neuritis, 2 cases of hypertrophic spondylitis, and cases of tabes dorsalis, beriberi, acute poliomyelitis, thrombo-angiitis obliterans, and pyramidal tract degeneration. Improvement in varying degrees was

noted in all the cases treated. Pain was lessened or abolished completely; muscular control, speech and gait improved; the patients looked and felt better; some felt "rejuvenated." The improvement was marked in the case of von Recklinghausen's disease; some of the nodules disappeared, and others became softer and smaller. The author concludes that vitamin B<sub>1</sub> is "a remarkable specific oxidative and catalytic drug of great

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benefit to injured, diseased, or avitaminotic nerve tissue", and "one of the most valuable therapeutic agents at our command."

#### COMMENT

The use of Vitamin B<sup>1</sup> in such a huge number of cases, of such widespread etiology, to me alone suggests a distinctly unfavorable criticism for any possible specific value that this medication may have.

In the opinion of the reviewer the claimed general benefit resulting from the use of this subarachnoid injection undoubtedly results largely from its general anti-neuritic qualities rather than through acting in any specific fashion in the case of a particular disease contracted. There is no doubt of its value in polyneuritic syndromes caused by inadequate vitamin intake. We have no desire at the present time to introduce spinal treatment for any of these diseases which are under our control, as we cannot conceive what particular value can be derived from the subarachnoid injections of vitamin B<sup>1</sup>, since the intravenous, oral and intramuscular routes are perfectly satisfactory. The method is undoubtedly more dramatic. The only value of this study is that it proves that this vitamin can be introduced into the subarachnoid space without untoward effect.

H.R.M.

#### Lipoid Content of the Blood in Deficiency Diseases and During Demyelination of the Nervous System

E. F. GILDEA (*Archives of Neurology and Psychiatry*, 39:284, February, 1938) reports a study of the lipoids of the blood serum in 12 patients with severe symptoms of deficiency disease. Seven of these patients showed marked undernutrition, as well as symptoms of severe lesions of the nervous system; 4 showed similar lesions of the nervous system, but no undernutrition; in one patient there was extreme undernutrition, cutaneous lesions and anemia, but only slight evidence of involvement of the nervous system. Two of the 7 patients with undernutrition and nerve lesions, and 2 of the 4 patients with nerve lesions but not undernourished failed to respond to treatment with a high vitamin diet plus concentrates of vitamins B<sup>1</sup> and B<sup>2</sup> (G). Autopsy in these 4 cases showed extensive demyelination of the peripheral nerves and tracts of the spinal cord. In all the patients who were undernourished, the cholesterol and phosphatide content of the blood serum

was either much below or at the lower limits of normal; the values for total fatty acids were low in 4 cases and close to the median value for normal in 3 others. The findings indicate that malnutrition alone accounts for the low lipid content of the blood in deficiency disease. The process of acute demyelination in the nervous system was accompanied only occasionally by a rise in the total fatty acid content of the blood serum, while there was no rise in cholesterol or phosphatides, except in one case where the phosphatides followed the course of the fatty acids. The conclusion is reached that prolonged subsistence on diets sufficiently lacking in vitamins B<sup>1</sup> and B<sup>2</sup> (G) and possibly A to produce changes in the nervous system, and possibly in the mouth and skin, has no effect on the blood lipoids except that due to malnutrition.

#### COMMENT

This paper is important in that it tends to show the futility of prescribing high fat diets in cases of chronic disease affecting the central nervous system.

From a therapeutic viewpoint this study is of importance. We shall lay more stress on other methods of approach in the handling of these cases.

H.R.M.

#### Mechanism of Migraine Headache and the Action of Ergotamine Tartrate

J. R. GRAHAM and H. G. WOLFF (*Archives of Neurology and Psychiatry*, 39:737, April, 1938) report a study of 32 attacks of migraine in 16 subjects, with additional, but less complete, observations on 20 attacks in 6 other subjects. These studies were made when the phenomena that precede the headache had subsided and typical head pain had become established; hence they concern only the origin of this pain, not the "preheadache phenomena." By measuring the pulsations of the temporal and occipital branches of the external carotid artery, it was found that changes in the intensity of the migraine headache were closely related to changes in the amplitude of the pulsations in these arteries. Factors that decreased the amplitude of pulsations diminished the intensity of the headache. Ergotamine tartrate reduced the amplitude of pulsations in these arteries by approxi-

mately 50 per cent. The relief of headache following the injection of ergotamine tartrate was closely related to this effect of the drug on the arterial pulsations. When the intensity of the headache diminished rapidly the amplitude of the pulsations decreased rapidly; and when the intensity of the headache diminished slowly, the pulsations also decreased slowly. Observations and photographs showed that ergotamine tartrate produced vasoconstriction of the temporal and middle meningeal arteries. The reduction in amplitude of pulsations may be attributed to this. Ergotamine tartrate did not reduce the threshold for the perception of pain either superficial or deep; it did not perceptibly diminish the response of smooth muscle to sympathetic nerve stimulation. These findings "lend support to the postulate that the head pain of the migraine attack is produced by the distention of cranial arteries," and that the effect of ergotamine tartrate in relieving the headache is due to the fact that it constricts these arteries and diminishes the amplitude of their pulsations.

#### COMMENT

*This paper represents an interesting approach to the explanation of a commonly observed phenomenon in migraine. The pain of the blood vessel in the back of the neck and the side of the head is quite a characteristic observation in almost all cases. The observation of these workers would seem to explain the action of ergotamine tartrate in reducing the curve of arterial pulsations. It does not as yet explain the reason why they are so strictly limited to the head regions or why these pulsations occur at all. Undoubtedly other reports will follow that will bear on these problems.*

H.R.M.

### + Physical Therapy +

#### **Irradiation Effects of Ultra-Violet Light From Mercury Arc, Cold Quartz and High Frequency Lamps**

R. R. M. McLAUGHLIN (*Medical Record*, 147:299, April 6, 1938) discusses the characteristics and therapeutic uses of three types of ultra-violet lamps—the mercury arc, cold quartz and the high frequency lamps. Sunlight has

practically no ultra-violet of wave lengths below 290 mu, but all of the artificial sources of ultra-violet light emit rays of shorter wave lengths down to 254 mu or even lower. The chief difference between the three types of lamps is the amount of radiation above and below 290 mu; with the mercury vapor lamp above 6 per cent of the total radiation is of wave lengths below 290 mu; there is an area in the radiation of this lamp with wave lengths of 302 and 313 mu. The cold quartz lamp produces practically a "monochromatic" type of radiation at 254 mu; there are small bands at 297 and 313 mu. The high frequency lamp has a band of greater intensity at 254 mu than the mercury vapor lamp, but its radiations above 280 mu are weaker than those of the mercury vapor lamp, so that the effect is intermediate between the other two lamps. If a corax D or uvioil glass is used in the high frequency lamp, the rays of shorter wave lengths are eliminated. The rays with wave lengths at 254 mu has greater bactericidal power than rays of lower wave lengths. These rays do not penetrate deeply into the skin and produce only a slight and superficial erythema. But rays with wave lengths of 297, 302, and 313 mu produce erythema with tanning on repeated exposure, and have a definitely tonic effect when used for general body irradiation; the blistering effect of these rays when given in heavy dosage may be therapeutically useful. With the high frequency lamp a combination of effects can be obtained with less tanning of the skin, more superficial peeling, and a greater margin of safety between the erythema and blister producing exposure times. The tonic effect is less than with the mercury vapor lamp unless the shorter rays are filtered out with the use of uvioil or corax D.

#### COMMENT

*This article very distinctly records exactly what each of the ultra-violet lamps may be expected to do. The original hot mercury arc in quartz still surpasses other methods of generating ultraviolet energy.*

*A new burner, not mentioned in this article, called the Spanner, utilizes but a small amount of mercury and a short arc but more nearly approaches the standard lamp than any other.*

N.E.T.

## **Studies on the Biologic Effect of Colored Light**

H. VOLLMER (*Archives of Physical Therapy*, 19:197, April, 1938) reports studies of the effect of red and blue light on plants, animals and on human subjects. In most of his experiments he employed the commercial red and blue cellophane, for absorbing different light rays. The red cellophane in a single layer completely absorbed all wave lengths below 565 mu and in two layers all below 580 mu, thus excluding chemically active light rays. The blue cellophane showed strong absorption above 600 mu, diffuse bands between 600 and 500 mu. The light with these cellophane shields is not strictly monochromatic, but sufficiently so for the purposes of the experiment. It was found that the germination of lentils is delayed, but their growth stimulated by red light; these results are considered to be "phenomena of etiolation—not a specific effect of red light." Guppies show a preference for blue and ants for red light; flies do not seek either. This is to be explained by the natural preference of these species for daylight, semi-darkness, and darkness, respectively. Red light was not found to influence the growth of rats, or to have any effect on the blood calcium and phosphorus, bone formation, or structure of the hypophysis or gonads. Red room treatment was found to have a definite effect in preventing suppuration and scar formation in variola. This the author interprets as a "negative light therapy," that is, the effect is due to the exclusion of chemically active rays, not the specific effects of the red light. No specific effect of red light on erysipelas, exanthemata, lupus erythematosus or ultra-violet erythema was demonstrated. Red light has certain definite therapeutic effects in colds, otitis, lymphadenitis and other diseases, and on wounds. These results are due to heat therapy "with radiating and conducting heat." When a heat effect 1 to 1½ cm. below the surface of the skin is desired, the use of the red light filter is indicated because it gives the deeper penetrating red rays; when irradiation of the deeper layers is not desired, as in lesions of the mucous membrane, the blue filter is useful, as it

retains the deeper penetrating rays. In treatment with colored light, there is undoubtedly a psychotherapeutic component that must be taken into consideration.

### **COMMENT**

*This article tells the truth as it has never been told before and undoubtedly will raise a great storm of protests from the quacks who are cheating the public in making them think that different colored lights have specific curative effects on the human body. If the human eye was not sensitive to certain wave lengths, there would be no such thing as color. Since it is only the specific receptive activity of our eyes that seems to make one wave length different from another, there is no reason to expect that the human or normal organism differentiates these different wave lengths by general reactions.*

N.E.T.

## **Passive Vascular Exercise in Peripheral Vascular Disease**

G. H. YEAGER (*Archives of Physical Therapy*, 19:158, March, 1938) reports the use of passive vascular exercise by means of alternating positive and negative pressure in the treatment of peripheral vascular disease. In arteriosclerosis with "fixed sclerosis of the arterioles" he has not found this method effective. It is also ineffective in the "fulminating form of thrombo-angiitis obliterans," even in combination with other conservative measures; in all such cases under the author's observation, radical amputation was ultimately necessary. However, in other types of organic peripheral vascular disease, passive vascular exercise, combined with various supportive measures, has definitely reduced the number of cases in which amputation was necessary. Six illustrative cases in which this method has been used are reported. In one of these cases a toe had previously been amputated and the stump had not healed. Passive vascular exercises resulted in healing of the stump and a perforating ulcer on the same foot; and also in relief of pain. In this case a second series of treatments was necessary a year later to relieve recurrence of symptoms. In another patient with coronary sclerosis, thrombotic occlusion of the popliteal artery on the left side

occurred. The patient was seen twenty-four hours after onset of symptoms and passive vascular exercises instituted; the foot became gangrenous, however, and amputation was necessary. Two months later similar symptoms developed on the right side; treatment was instituted two hours later. In this case the circulation was maintained, and the foot and leg became normal. The author states that he was unable to determine any difference in the condition of the two extremities in this case except for the "time element" in the institution of therapy. Passive vascular exercises, he concludes, although not effective in every case of organic peripheral vascular disease, are useful in a considerable percentage of cases, and therefore, an important adjunct in the therapy of such cases.

#### COMMENT

Papers such as this one are indeed important to stem the wave of enthusiasm for sticking every case in a pressure and suction boot. Observations of the effects of this treatment have led to a refining of diagnosis and a better understanding of its indications. It is hoped that this better understanding will lead to fewer accidents such as were common when enthusiasts started to use pressure and suction.

N.E.T.

#### Roentgen Therapy in Angina Pectoris

M. G. WASCH and S. G. SCHENCK (*American Journal of Roentgenology*, 39:585, April, 1938) report the treatment of 65 cases of angina pectoris with the roentgen rays. One large portal over the lower two cervical and upper six dorsal segments, including the paravertebral site, was employed. A series of treatments consisted of 150 r (measured in air) given every second day for four treatments, with 200 kv., 4 ma., 37.5 cm. skin focal distance, filtration 0.5 mm. copper and 1 mm. aluminum. If necessary a second series of treatments was given the following month. This was repeated if symptoms recurred. The average number of treatments was sixteen. Of the 65 cases treated, 10, or 15.4 per cent., showed marked improvement; 21, or 32.3 per cent., slight improvement. Three deaths occurred in the 65 cases, one from congestive heart failure a year after completion of the roentgen-ray treatments; 2 from coronary occlusion,

one and two years respectively after treatment. None of the patients was made worse by the treatment. The roentgen-ray treatment of angina pectoris acts on the sympathetic system, and is compared with the surgical treatment (sympathectomy) and alcohol injection of the sympathetic nerves. With radiotherapy there is "neither mortality nor morbidity"; the effects are not as permanent as with surgery, but treatment may be repeated at four to six week intervals if indicated. The roentgeno-therapy is a harmless procedure that the authors believe should be tried in all severe cases that fail to respond to medical treatment. If this fails, the other more radical procedures may be used. The authors find that radiotherapy gives better results in angiospastic cases than in those with advanced arteriosclerosis or coronary occlusion.

#### COMMENT

There always has been a number of roentgenologists who have been interested in therapy applied to non-malignant conditions, but the treatments have been most empirical. It is possible that roentgenotherapy can affect the sympathetic system and enough cases treated may change the procedure from an empirical to a rational one.

Diathermy has been used for years with very good results in angina pectoris and certainly is a most rational form of physical therapy.

N.E.T.

#### Infra-Red Therapy in Acute Suppurative Conditions

E. E. TAYLOR-PENGELLEY (*British Journal of Physical Medicine*, new ser. 1:63, February, 1938) states that infra-red therapy is useful in the treatment of many suppurative conditions such as abscesses, cellulitis, carbuncles, boils, etc. In these conditions hot fomentations are often prescribed, but infra-red radiation has many advantages over other forms of heat in such conditions; among which the author notes, continuous heat without maceration of the epidermis (as with poultices, fomentations, etc.); heat controlled to the maximum of comfort and efficiency; heat without the pain produced by direct contact with the lesion; heat, which because of its penetration is felt deeply without "any sense of scorching or burning." To obtain the full effect of the infra-red rays,

they should be employed in the wave length that penetrates most deeply, as it is this penetration that makes the sensation of warmth develop slowly, and avoids the discomfort produced by heat from a luminous source. The author makes it a practice to give at least two exposures to the infra-red rays every twenty-four hours in acute suppurative conditions; the duration of each exposure is from forty-five minutes to one and a half hours. If the process is treated early so as to be aborted, pain and swelling diminish promptly, usually after the third treatment. If the lesion advances to the formation of pus, tension and pain are lessened. If pus has formed each case must be dealt with immediately according to indications to establish drainage, but whatever method is used, the addition of infra-red radiation will aid the treatment and relieve pain.

#### COMMENT

*The use of infra-red radiation and only that part of the spectrum as an application of phototherapy has lost popularity in this country amongst physical therapists. It is generally considered that incandescent bulbs, giving off visible rays as well as infra-red, cause more energy to penetrate beneath the skin with less feeling of warmth thereon. Too many workers using phototherapy think the patient must feel a great deal of heat upon the skin, whereas it is the amount of subdermal illumination that causes the vasodilatation and consequent relief of pain. The resulting local hyperemia increases the leucocytes in that tissue and also activates them. There is no doubt but what the longer phototherapy is applied, the better is the result, and frequently continuous applications of light for days instead of hours will control infections and sometimes make surgery unnecessary.*

N.E.T.

**+ Public Health, +**  
**Industrial Medicine and**  
**Social Hygiene**

#### *Necropsy Evidence on the Relation of Smoky Atmosphere to Pneumonia*

S. H. HAYTHORN and H. B. MILLER (*American Journal of Public Health*, 28:479, April, 1938) report a

study of the relation of the smoky atmosphere to pneumonia based upon autopsy studies in Pittsburgh hospitals. Pittsburgh, the authors note, "presents an unusual opportunity for the study of the relation of smoke to pneumonia." The annual death rate from pneumonia is higher in this city than in the rest of the State of Pennsylvania, and the atmosphere is "laden with dust and smoke," especially in the winter months. It has been noted from time to time that following periods of several days of continuous "smog" (mixtures of smoke and fog), the number of deaths from pneumonia increased. An earlier study by Haythorn showed that in Pittsburgh a higher percentage of cases than reported elsewhere failed to resolve in the usual way by crisis but healed by the organization of the exudate. Another peculiarity of pneumonia in Pittsburgh is the predominance of pneumococcus types formerly included in Group IV. During the highly fatal epidemic of 1936-1937, Pittsburgh hospitals reported 65 per cent. of the cases typed belonged to this group. During the years 1932 to 1935, when, owing to the depression, air pollution from industrial flues was greatly decreased but "living conditions were at their worst," there was a marked decrease in deaths from pneumonia in Pittsburgh. In a study of 3,000 autopsy records from Pittsburgh hospitals and microscopic sections of the lungs, 5 grades of anthracosis were distinguished depending on the amount of extraneous pigment and the fibrosis present. Grades I and II had no particular occupational basis; grade III was a mixed occupational and non-occupational group; grades IV and V were largely, although not exclusively, occupational. The incidence of pneumonia of all types was highest in grades III to V of anthracosis, but as the average age of persons in these groups corresponds to the age periods at which the pneumonia death rate is highest in less smoky communities, this cannot be attributed entirely to the presence of the higher grades of anthracosis. But as the average age was the same for all three groups, and the incidence of pneumonia higher in grades IV and V than in grade III, it would seem some other factor than age is necessary to explain these differences. Healing by organization of

unresolved pneumonia was consistently of more frequent occurrence in the more advanced grades of anthracosis and most frequent in grade V. Thus, though no definite evidence was found to connect the pigment deposits in the lungs with high pneumonia incidence and high mortality rates, the association of severe anthracosis and healing by organization was again demonstrated.

#### COMMENT

*It is only within the past three decades that sanitarians have come to appreciate seriously the existence of a significant correlation between polluted atmospheric conditions and impairment of health, particularly diseases of the respiratory tract. The literature is constantly being enriched on the subject through careful research and experimentation conducted both in this country and abroad under the auspices of governmental agencies, as well as through voluntary foundations. However, until comparatively recently greater emphasis had been placed on the engineering problems involved rather than the pathological effects. The present contribution is part of the established program of studies conducted in the Pittsburgh area since 1911. It indicates careful scientific work and is a distinct step forward. Public health workers generally agree that the prevention of the smoke nuisance constitutes a major problem of the sanitary engineer. Smoke and fog, either independently or as a mixture (smog), are definitely detrimental to health not only because they serve as irritants to the respiratory tract, generally and specifically impairing pulmonary efficiency and contributing to the development of pulmonary disease, but also because studies have shown that the natural ultra-violet light in the atmosphere is filtered and reduced by the presence of fog or smoke, thereby promoting the incidence of rickets. In addition, they act as irritants to the eyes, skin and mucous membrane.*

*Smoke abatement is now part of the health program of every organized official health agency. It may be pointed out that since fog is essentially caused by the condensation of water vapor or particles of dust, the reduction of atmospheric dustiness will materially effect a consequent lessening of the tendency to development of fog.*

M.L.G.

#### *The Prevalence of Trichinosis*

C. H. SCHEIFLEY (*American Journal of Hygiene*, 27:142, January 1938) notes that it was not until recent years, beginning with the survey made by Queen in 1931, that the prevalence of trichinosis in the United States began

to be realized. In 1934 W. A. Riley and the author, by the examination of the diaphragm muscle of anatomy cadavers, using the pressed muscle method, found trichinae larvae in 17.1 per cent. The author's more recent studies on diaphragm muscle specimens from cases coming to autopsy in the general hospitals of Minneapolis and St. Paul showed 15 positive for trichinae in 118 cases, an incidence of 12.7 per cent. The infection was classed as mild in 11 cases, moderate in 3 cases, and severe in one. Combining this series with the earlier series of Riley and Scheifley gives an incidence of 14.4 positive findings for trichinae in 235 cases. Summarizing the findings in 2,597 examinations of muscle specimens reported in this country since 1901 (including the author's two series) the incidence of infection with trichinae is 12.3 per cent. In the 321 positive cases found in these surveys, there was no definite history of trichinosis in any instance, although in some instances there was a history of "vague rheumatic and muscular pains." The higher incidence of trichinosis in the dissecting room specimens, as compared with hospital specimens, may be attributed to the fact that the former come from people of "a very low economic status," while the general hospital specimens represent more nearly "a cross-section of the population." Some of the other studies reported also indicate a lower incidence of trichinosis in persons of better economic status. The "astonishingly high" incidence of trichinosis in the United States as shown by these studies indicates that many people are eating raw or "undercooked" pork; and that the hogs in the United States are infested with trichinae to a higher degree than indicated by the last government survey of eight million swine, completed in 1906.

#### COMMENT

*Abundant scientific evidence has accumulated in recent years in this country tending to show that we have in the United States the greatest problem in trichinosis in the world. This fact has been pointed out by Surgeon General Parran at this year's conference of State and Territorial Health Officers in Washington. Summing up all the evidence, we find that during the past fifty years necropsy studies in the National Institute of Health and by others indicate an incidence of trichinae of approximately 17 per cent*

in more than two thousand human diaphragms examined postmortem. The problem is now recognized as being of such importance that a comprehensive plan has been formulated by the Chief of the Division of Zoology of the National Institute of Health, the objective being adequate control of trichinosis in this country. This plan will involve cooperative measures on the part of the Public Health Service, Bureau of Animal Industry, State health officials, State live stock sanitary officials, the pork packing industry, and physicians, veterinarians and sanitarians throughout the country.

M.L.G.

### Cutaneous Hazards in the Citrus Fruit Industry

L. SCHWARTZ (*Archives of Dermatology and Syphilology*, 37:631, April, 1938) presents a study of the cutaneous hazards in the growing, packing and canning of citrus fruits. In those employed in growing and picking the fruit, cutaneous injuries arise from wounds by citrus thorns and splinters from boxes and dermatitis from the fertilizers and insecticides employed. In the fruit packing industry, dermatitis develops from the washing solutions employed and from contact with the fruit itself in those hypersensitive to citrus oils. In those employed in canning these fruits, dermatitis and paronychia develop among peelers, reamers and sectioners from constant contact with citrus oils and juices, especially in those hypersensitive to these substances. No instance has been found of dermatitis due to the dyes used to color oranges; hypersensitivity to such dyes might result in the development of dermatitis, but such hypersensitivity is evidently rare. For the prevention of the skin lesions noted, persons who spread fertilizers and handle insecticides should wear rubber gloves, aprons and goggles; pickers should wear leather gloves and wrist bands; packers, peelers, reamers and sectioners should wear rubber gloves; and the packing and canning operations should be mechanized as far as possible.

#### COMMENT

The author, a medical director in the United States Public Health Service, is a pioneer in the field of industrial dermatoses. His contributions over a considerable period of years have been notable in enriching the literature on this aspect of industrial health.

The appreciation of the dietary importance

of citrus fruits and the part they play in the preservation of health by supplying certain important vitamins has stimulated the citrus fruit industry in all its phases. This present contribution is a comprehensive study of the various dermatoses that have been known to occur in citrus fruit handlers as reported in the literature. The article shows evidence of careful thought and detailed attention to the dermatitis problems experienced in many phases of the citrus fruit industry, beginning with those affecting workers in the groves right through the final handling of the fruit to consumers.

M.L.G.

### Blood Dyscrasias Caused by Occupation

I. W. HELD and A. LIEBERSON (*New York State Journal of Medicine*, 38:186, Feb. 1, 1938) note that blood dyscrasias "do not rank high in frequency among occupational affections," but they are, nevertheless, of sufficient importance to merit more than the "scant attention" given them in textbooks or in medical literature generally. The chief industrial agents producing blood dyscrasias are benzol, radium and X-rays, and lead. Benzol injures the myeloid primarily but other parts of the hematopoietic system are almost always involved, and in persons particularly susceptible to this poison, the entire hematopoietic system may be affected apparently all at once, which explains the acute agranulocytopenia occasionally seen in benzol poisoning. In the first stage of benzol poisoning there is a neutropenia without change in the red cells and possibly an increase in the blood platelets; if the worker is removed from contact with benzol at this stage, complete recovery occurs. The primary action of radium and x-rays is a stimulation of the lymphoid tissue with resultant lymphocytosis; unless the worker is protected from the further action of this irradiation, the condition progresses until the blood picture becomes typical of lymphatic leukemia, with reduction in both red cells and blood platelets. Lead acts chiefly on the erythropoietic system, depressing red cell formation, although this is often compensated for by regeneration. Lead anemia is a part of generalized intoxication by lead, and is the least serious of the industrial blood dyscrasias.

#### COMMENT

This contribution to the field of industrial

hygiene is of value in that it calls our attention to hematological changes that may take place in industrial workers exposed to certain agents, chemical and physical. It is well to be reminded of the fact that methods and procedures designed to safeguard the health of workers should include a consideration of agents in the working environment which may affect the blood picture.

M.L.G.

### On the Trail of the Spirochete and the Gonococcus

J. WEINSTEIN (*Journal of Social Hygiene*, 24:15, January, 1938) notes that in New York City it has recently been possible to apply "direct epidemiological procedures" to discovering sources of infection and contacts of patients with syphilis or gonorrhea coming to venereal disease clinics. The methods adopted in 6 illustrative investigations are reported, 4 of syphilitic and 2 of gonorrheal infections. One was a case of syphilis transmitted by blood transfusion. In the last and most extensive investigation, 52 persons were involved, of whom 45 were located and examined, and 19 cases of syphilis found; 7 of these 19 had primary lesions (2 on the lip), and 3 secondary lesions; 12 had never previously been reported to the Health Department; 6 delinquents among old cases were persuaded to return for further treatment. Such results prove the value of epidemiological investigations as an aid to the control of venereal disease.

#### COMMENT

Increasingly greater emphasis is being placed on the importance of epidemiological investigation in connection with gonorrheal and syphilitic infections. We fully appreciate the fact that cases of syphilis and gonorrhea in the infectious stages, if not discovered and placed under proper supervised treatment, can conceivably serve as potential reservoirs of infection for others. In Rhode Island the State Department of Public Health has stressed epidemiology with reference to syphilis and gonorrhea control since 1935. During this period of activity a total of 294 persons were examined in connection with reported cases. Of this number 101 instances of syphilis in the primary or secondary stages were discovered. Adequate control of these potential reservoirs of infection, through efficient epidemiological methods, will undoubtedly serve to effect the most striking reduction in the incidence of these diseases.

M.L.G.

### The Routine Wassermann Tests in College Students

R. E. BOYNTON and B. P. DAVIES (*Journal-Lancet*, 58:134, March, 1938) note that the importance of including a Wassermann test as a part of every physical examination has recently been stressed, but that it has been made a part of the physical examination of college students in only relatively few institutions. Since 1927, the Wassermann test has been done routinely as a part of periodic health examinations for all students, excepting entering students, at the University of Minnesota; in 1936, this test was included in the physical examination of entering students. During the academic year 1936-1937, Wassermann tests were done on 9,064 students at the University, including 4,131 entering students; there were 15 who gave a positive reaction, or 0.165 per cent. Of these 15, a diagnosis of syphilis had been made previously in 8 cases, but 7 had not known of their infection. Treatment for all of these students was arranged; in addition 5 other students with a positive Wassermann reaction from the preceding school year were kept under observation and treatment. Adding these 9,064 cases in which Wassermann tests were made in 1936 to 10,000 cases from previous years, 39, or 0.2 per cent. of the entire series, were found to have persistently positive Wassermann reactions. In this group of 39 students, there were 30 in whom the diagnosis of syphilis had not been made previously, but who were placed under treatment. Even though the incidence of syphilis is low in college students, the high proportion of previously unrecognized cases makes the routine Wassermann test worth while, both from the standpoint of the infected individual and of the general public.

#### COMMENT

Public health authorities are in full accord with the opinion of the authors that the routine Wassermann test as part of the physical examination of college students is desirable. The experience of the authors has been borne out in other colleges and universities throughout the country where Wassermann tests are performed on groups of students, in that the per cent of positives is far lower

than that obtained in the general population. A study of present trends would lead us to anticipate that practically every college and university in the country will shortly adopt laboratory tests for syphilis as part of the health examination. In the case finding of syphilis our main reliance at the present time is on the Wassermann "dragnet." It would be well to encourage the continuation and extension of Wassermann test surveys of all groups in our population. Through this means we shall be enabled to achieve progress toward the ultimate goal of syphilis eradication.

M.L.G.

## + Ophthalmology +

### *Vitamins in Treatment and Prevention of Ocular Diseases*

A. M. YUDKIN (*Archives of Ophthalmology*, 19:366, March, 1938) reports that at the Yale University Clinic, many patients with various types of ocular disturbances have been treated with vitamins. A number of patients with phlyctenular keratitis recovered within a week when given a well-balanced diet with cod-liver oil and brewers' yeast added. A number of patients with interstitial keratitis showed rapid improvement. In children with a dryness of the cornea and even with a broken down cornea, the eye condition improved rapidly on a high vitamin diet, especially high in vitamin A. A somewhat similar condition has been observed in adults; this began with a breaking down of the periphery of the portion of the cornea exposed in the palpebral fissure or covered by the lower lid; the ulceration tended to spread and was not influenced by local treatment. Some of these patients showed definite improvement when cod-liver oil was added to the diet; in others the addition of vitamin B complex was also necessary before the ocular condition improved. This treatment was effective in the majority of cases. In cases of retinitis pigmentosa the hemeralopia was not improved by vitamin A therapy or by combining vitamin B with A. The patients stated that they had better vision under vitamin therapy, but ocular examination usually showed no increase in visual acuity or visual fields. The author is of the opinion that if a

diet high in vitamins (especially A) is given in the early stages of retinitis pigmentosa, the disease "may be held in abeyance." The vitamin B complex proved useful in the treatment of toxic amblyopia, especially that due to the use of alcohol and tobacco. Vitamin C was used in the treatment of extravasation of blood in the vitreous, choroid and retina, but it was found that lemon juice was more effective than cevitamic acid in such cases. The administration of the juice of four or five lemons daily cleared up the extravasation of blood and the edema more promptly than synthetic vitamin C. So far the author has found "no definite use" for vitamins D and E in ophthalmology.

#### COMMENT

Most of us have had experiences paralleling those described by Yudkin. We must realize that other less obvious indications for the use of vitamins in ophthalmology are very common. Accommodative asthenopia and convergence insufficiency are often encountered in people suffering from general muscular lassitude, low blood pressure, and subnormal intestinal muscle tone. This forms a syndrome which must be recognized, if the patient is to be relieved from his feeling of chronic ocular fatigue. Vitamins A and B seem most helpful in such cases, but it is better to push all available vitamins as their interdependence is common knowledge.

Another syndrome in which vitamin B seems helpful is that occurring in patients the subjects of colitis of the spastic type. It appears that these unfortunates have a spastic accommodation and vasomotor disturbances. This suggests that intestines, blood vessels and ciliary muscle are all overactive through the same mechanism. One cannot expect that correction of a refractive error alone will influence the common etiology.

In supplying vitamin C in the form of ascorbic acid for the treatment of intraocular bleeding, it is necessary to supplement it with lemon juice in order to insure the presence of the substance which maintains normal capillary permeability. J.N.E.

### *Normal Discs in Patients With Chiasmal Lesions*

A. A. McCONNELL and A. J. MOONEY (*Brain*, 41:37, March, 1938) note that while pallor of the optic discs is usually found in chiasmal lesions, cases have been noted in which the appearance of the discs was normal. In some cases, the accuracy of the record in this respect has been questioned. But the authors report 6 cases in which there

were definite visual field defects, but the optic discs were normal; in all there were definite signs and symptoms of a tumor in the neighborhood of the chiasm. In this group, the tumor was found to be retrochiasmal in 5 cases; prechiasmal in one case, but in this latter case it did not displace the optic nerves laterally. During the period that these 6 cases were under observation, there were 8 other cases with similar signs and symptoms of a chiasmal lesion, in which there was primary optic atrophy; in this group all the tumors were prechiasmal. In the first group with normal optic discs, 4 of the 6 patients died after operation; in the second group, all but one of the 8 patients recovered. In the group with normal discs, the optic nerves were normal in appearance and "ran straight from the foramina to the chiasma." In 2 cases autopsy showed that the optic nerves had one or more deep notches apparently due to pressure against arteries; these notches were not seen during operation. In the group with optic atrophy, the optic nerves appeared to be whiter than normal, to be flattened and "curved around" the tumor. It would seem that the pallor of the discs in tumors of the chiasmal region is due to displacement or stretching of the optic nerves rather than to involvement of the optic chiasm or optic tracts, and that such "embarrassment" of the nerves is less likely to occur when the tumor lies behind the chiasma. When ophthalmological examination shows normal discs in a patient with chiasmal symptoms, "it is probable that the lesion, if a tumor, will be found behind the chiasma."

#### COMMENT

*It has become almost an axiom that one cannot judge optic nerve function by study of the color of the papilla.*

*It would seem that the authors of this paper could have collected useful data by the use of angioscotometry.*

J.N.E.

#### Intracapsular Cataract Extraction

L. F. APPLEMAN (*Archives of Ophthalmology*, 19:548, April, 1938) reports the use of the Knapp intracapsular method of cataract extraction in 146 out of 250 ward patients at the Wills Hospital, Philadelphia, Pa. These were all uncomplicated cases. In this series, vision of 6/12 or better was obtained in 98 cases, or 67.1 per cent., including 37

cases with vision of 6/6. These results would undoubtedly have been better if all the patients had returned for a check-up; more than 50 patients did not return, and the results are those recorded just before discharge. In 104 cases without complications in which the classic method of cataract extraction was used, a vision of 6/12 or better was obtained in 80 cases, or 77 per cent., 20 of which had vision of 6/6. In 72 cases from the author's private practice in which intracapsular extraction was done, 63, or 87.5 per cent., had a vision of 6/12 or better, with vision of 6/6 in 42 cases. In 18 cases in the wards in which complications were present, the intracapsular extraction gave satisfactory results in only one case; in 5 complicated cases in which extracapsular extraction was done, the operation was considered a failure in all. The author considers that extracapsular extraction is the method of choice in cases of cataract without complications; there is "scarcely any reaction"; convalescence is smooth and rapid; the eye remains clear and the visual results are good.

F. BRACKEN (*New York State Journal of Medicine*, 38:610, Apr. 15, 1938) reports 100 cases of cataract in which the intracapsular method of extraction with iridotomy was employed. Post-operative prolapse of the iris, which is the complication most apt to occur in the simple intracapsular operation, has been almost eliminated by inserting sutures into "the more solid structures of the cornea and sclera." Prolapse of the vitreous occurred in 5 cases and was of slight degree; all these patients had a vision of 20/30 or better. This complication does not appear to be "a hazard peculiar" to the intracapsular operation. In this series of 100 cases, 16 obtained vision of 20/15, 46 of 20/20, 16 of 20/20 to 20/30 and 12 of 20/30 to 20/40. The author has found the intracapsular method well suited for presenile cataracts, contrary to the opinion expressed in the literature. In patients below fifty years of age, he has found it possible to grasp with the capsule forceps, dislocate and successfully remove the cataract in a higher percentage of cases than in any similar group.

#### COMMENT

*In spite of accumulating statistics, the ac-*

cepted conclusion of most operators is that they routinely adhere to that technique with which they have the most facility, departing from it only when special indications arise for the employment of some other method. This attitude seems fairer to the patient, though it may speak for lack of progress in some instances.

J.N.E.

### The Fluorescent Lamp in Cataract Surgery

H. R. HILDRETH (*American Journal of Ophthalmology*, 21:299, March, 1938) notes that the chief advantage of the use of the fluorescent lamp in the cataract operation is the visibility given to the lens surface; with this high visibility, the capsule forceps can be adjusted with "sureness and accuracy." To give the proper degree of visibility, the carbon arc must be used at the source of energy; the tips of the carbons should be about one-eighth inch apart. In using the lamp it must be focused carefully on the pupil, with the point of focus about eight inches from the end of the lamp. The lamp is supported on a stand and "aimed" slightly downward; an adequate handle is attached to the back, so that the beam can be constantly focused on the cataract. The fluorescent lamp is used only during the actual extraction of the lens; the other steps of the operation—section, iridectomy, placing of sutures, etc.—are carried out under white light. To combine the forms of illumination and place them under the control of the surgeon, an operating spot light may be attached to the fluorescent lamp, operated by a foot switch. While it is true that the use of the fluorescent lamp does add somewhat to the complexity of the cataract operation, the author has found that the proper use of this lamp gives a "refinement" to cataract surgery that "inevitably improves results."

#### COMMENT

If there is anything to be gained by the use of fluorescent light in ophthalmic surgery, the Hildreth lamp would seem indicated. It is possible to use a mercury vapor lamp inclosed in a special (uviolet) glass bulb in place of the Hildreth arc. Much more intense fluorescence is possible, however, by the use of special metal electrodes such as are used in the Singer lamp for fluorescent microscopy.

J.N.E.

### Use of Typhoid H Antigen Before Intra-Ocular Operations

A. L. BROWN (*Archives of Ophthalmology*, 19:181, February, 1938) states that animal experiments have shown that the intravenous injection of typhoid H antigen increases not only the antibody titer of the blood, but also the antibody titer of the aqueous. Typhoid H antigen has been given prior to intra-ocular operations in 100 cases in the last six months; 0.06 c.c. of the typhoid H antigen solution is given intradermally fifty to seventy-two hours before operation. Most of the patients had only slight discomfort; or a "chilly sensation"; 20 per cent. had a more severe reaction with considerable malaise and fever, which lasted only two to four hours. In these 100 cases, postoperative inflammation (corneal) occurred in only one case. The antigen has also been given in cases of ocular injury when only the eye has been injured.

#### Action of Ultra-Violet

A. DOGNON and J. MAWAS (*Bulletin de l'Académie de médecine*, 102:324, March 15, 1938) report experiments in which the open eyes of rats and rabbits were exposed to irradiation with ultra-violet rays of varying wave-lengths from 2000 Angstrom units to 2700 Angstrom units. Considering that the intensity of radiation used in these experiments was greater than that usually employed, except for strictly medical application, it was found that the rays emitted by lamps of the Corex D or Uviol type (Sunlamp type) with wave-lengths of 2700 to 2800 Angstrom units had no definitely irritating effect upon the eye. These lamps may induce a slight skin erythema in man, and have a definite antirachitic action. Ultra-violet radiations of shorter wave-lengths cause inflammation of the conjunctiva and cornea with exposure of fifteen minutes or more.

#### COMMENT

Local use of ultra-violet light in ophthalmology has decreased in popularity in the last ten years. This would seem partly due to the technical difficulties of application as well as to the fact that results of treatment have not been as encouraging as early enthusiasts claimed. General light baths of the ultra-violet end of the spectrum are still fairly popular as supportive treatment.

J.N.E.

# Medical Book News

\* All books for review and communications concerning Book News should be addressed to the Editor of this department, 1315 East 47th Avenue, Brooklyn, N.Y.

Edited by Alfred E. Shipley, M.D., Dr.P.H.

## *Tuberculosis in the Adult*

**PULMONARY TUBERCULOSIS IN PRACTICE.** A Modern Conception. By R. C. Wingfield, M.B. Baltimore, William Wood & Company, [c. 1937]. 122 pages, illustrated. 8vo. Cloth, \$2.50.

Dr. Wingfield has developed a decidedly original and novel method of presenting the pathogenesis and evolution of Adult Clinical Pulmonary Tuberculosis. He has done this with the idea of as nearly as possible simplifying a rather complex subject. To one who follows his text closely there should result a clearer concept of the various modes of development and types of lesion occurring. Unless one follows the text very carefully and closely, however, the result may be a little confusing. Such often is the way of schemes intended to simplify. This is no book then to be read casually, but is one really to be studied from cover to cover.

FOSTER MURRAY.

## *A New Textbook on Oral Surgery*

**SURGICAL DISEASES OF THE MOUTH AND JAWS.** By Earl C. Padgett, M.D. Philadelphia, W. B. Saunders Company, [c. 1938]. 807 pages, illustrated. 8vo. Cloth, \$10.00.

This new and voluminous work in the field of oral surgery fits aptly into the library niche between the field of the physician and that of the dentist. The work should be of value to the dental or medical student, the specialist in exodontia or oral surgery, the otorhinolaryngologist and the general surgeon. Even the dermatologist and radiologist will find much value, for this is the first published work on oral surgery which, to this reviewer's knowledge, contains chapters on radiation therapy.

The preliminary chapters deal with general considerations of anatomy, physiology and pathology of the field involved. Following this is a short study of general surgical principles and of the

modifications thereof involved in oral surgery.

The main portion of the book consists of a discussion of wounds and injuries of the soft and hard tissues of the face and jaws. Under this general heading are chapters on the complications of wounds, injuries of the bony framework, of the teeth and alveolar processes; fracture of the jaws and methods of fixation of all types of fractures; dislocations; inflammations, etc., of the soft tissues; extraction of teeth and complications of this procedure.

Next are included chapters on inflammations and unclassified diseases; such as inflammations of the buccal and pharyngeal cavities, the antrum, the jaws, the temporomandibular joint, the salivary and lacrimal glands; and the neuralgias. Following this are chapters on malformations, such as malocclusion, cleft lip and palate, and their treatment. Next comes a consideration of the tumors of the hard and soft tissues of the mouth and jaws, with material on radiation therapy, and the surgical treatment of these tumors, together with a satisfactory outline of early diagnostic methods.

From the foregoing outline it may be seen that the book is complete to the nth degree. The bibliography and collaboration are adequate, and there are many illustrations, both drawings and photographs. Many eminent dental authorities have contributed to the more purely dental considerations. The book will be an asset to any professional library.

LAWRENCE J. DUNN, (D.D.S.)

## *Promoting Longevity*

**THE SPAN OF LIFE.** By William M. Malisoff, Ph.D. Philadelphia, J. B. Lippincott Company, [c. 1937]. 339 pages. 8vo. Cloth, \$2.50.

Man has always been interested in the duration of life. The author starts with

the primitive conception, that the "color of the hair and eyes" has not a little to do with the problem. From this point on the writer gives a scientific study of the influence of heredity, biology, chemistry and physio-chemistry, physiology, metaphysics and psychology. All of this would be of deep interest to the mind of a Chittenden or Mendel.

The lay reader would hardly understand the depth of the language used. The casual and immature scientific student would probably grasp some of the generally accepted facts which have been stressed. There is no question that, to a limited group of Scientists, this is a distinct contribution. We further agree that the effort to reach a reasonable duration of life, under the conditions we must live, is worthy of a study of this nature; but the number to attain a very long life, under the many problems confronted in life, is more theoretical than probable.

An idle automobile, safely housed and never put to a strain, will exist indefinitely as an outstanding piece of mechanism. How clear is the Psalmist statement and reasonable. "The days of our years are threescore years and ten and if by reason of strength they be fourscore years, yet is their strength, labor and sorrow; for it is soon cut off, and we fly away."

EUGENE W. SKELTON.

#### St. Cyres Lectures on the Heart

MYOCARDITIS. The St. Cyres Memorial Lectures. By J. Strickland Goodall, F.R.C.S. and others. London, Eyre & Spottiswoode, Ltd., [c. 1937]. 152 pages, illustrated. 8vo. Cloth, 10/6.

This volume is a collection of five lectures upon myocarditis given under the auspices of the National Hospital for Diseases of the Heart. The first lecture by J. Strickland Goodall upon the general subject of myocarditis is disappointing. It was delivered in 1927 and contains many ideas that are not accepted today. For example influenza is said to be "the most potent factor in the production of myocardial disease." Wenckebach's lecture on the Heart and Circulation in Beri-Beri is excellent. This author was one of the first to paint

the picture of the beri-beri heart, laying particular emphasis upon sudden right heart failure as the cause of death. He ascribed the enlargement of the heart in this disease to swelling of the muscle fibres caused by water inhibition.

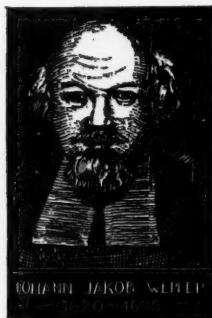
The lectures on myocardial disease by Moon, Cowan and Hay contain much sound and valuable information and are particularly noteworthy for excellent descriptions of illustrative cases.

This volume of St. Cyres Lectures on myocarditis does not contain much that is new, but is noteworthy because it contains the considered views of several of England's outstanding car-

E. P. MAYNARD, JR.

#### New Edition of a Standard Clinical Pathology

APPROVED LABORATORY TECHNIC. Clinical Pathological, Bacteriological, Mycological, Parasitological, Serological, Biochemical and Histological. By John A. Kolmer, M.D. and Fred Boerner, V.M.D. Second edition. New York, D. Appleton-Century Company, [c. 1938]. 893 pages, illustrated. 4to. Cloth, \$8.00.



#### Classical Quotations

● I opened the head: the skull removed and the dura matter being cut into pieces much blood flowed from the space, which is very roomy between this and the thin meninges, copiously, that is, from all sides and everywhere it poured forth . . . This, however, is certain, no external violent cause, be it a blow, be it a fall, was the cause of such ruptures of the blood-vessels.

Johann Jakob Wepfer.

*Historiae apoplepticorum*, Amsterdam. 1724.

diologists.

This volume has increased one-third in size with the second edition, and its scope of usefulness has gained not alone through revision and the addition of new methods but through extension of its original concept of the clinical laboratory field. New chapters have been added relating to mycological diagnosis, parasitology of skin and mucous membranes, and allergic skin test methods. Other sections have been so revised and expanded that a comparatively new text matter is apparent, notably those sections on toxicological, histological, and pregnancy hormone methods. Other new material is too profuse to be at all adequately listed, but prominent are the appearance of exclusion of paternity tests, photoelectric chemical methods, and the Eagle and Hinton reactions for syphilis.

The book is beautifully printed, and its character adapted to frequent use. The illustrations are profuse, always helpful, and admirably selected, often portraying actual technic or apparatus utilized. An unusually efficient index fifty pages in length concludes the work. The highly authoritative character of its context is noted by a survey of the twenty-eight collaborators and the fact that many authors of methods used have approved their own details. The well deserved popularity of the first edition will be reflected by the continuous demand for this unqualifiedly necessary reference for anyone concerned with the technical aspect of medical diagnostic pathology.

IRVING M. DERBY.

#### *Fundamentals of Human Nutrition*

THE FOUNDATIONS OF NUTRITION. By Mary Swartz Rose, Ph.D. Third edition. New York, The Macmillan Company, [c. 1938]. 625 pages, illustrated. 8vo. Cloth, \$3.50.

This book is one of the most reliable and authoritative works on the subject of normal nutrition. It is a textbook and reference volume to which the physician can refer with complete confidence.

Although Dr. Rose says in her preface that she is "presenting the subject of nutrition to beginners whose object is to be well informed as to the significance of food . . ." the presentation, while clear and accurate, is by no means elementary. It is sufficiently detailed and scientific to be of real interest to the

physician who recognizes the need for a sound knowledge of normal nutrition as a basis for diet therapy. Many experimental methods used in the study of food needs and constituents are recorded, and there are liberal references at the end of each chapter.

The subject matter is logically presented. Beginning with a historical introduction it deals chapter by chapter with energy requirements and the needs and best sources of protein, minerals and vitamins. It proceeds to a discussion of contributions to diet made by various types of food materials, and then shows how this knowledge is used in the construction of adequate diets for individuals of various ages. Finally, there is a chapter on well-balanced diets for family groups.

The appendix contains several tables, only two of which, however, deal with foods. It is recommended that this text be used with Dr. Rose's *Laboratory Handbook for Dietetics* which contains one of the most complete collections of food tables available.

ETHEL PLOTZ.

#### *Hospital Social Service*

THE SOCIAL COMPONENT IN MEDICAL CARE. A Study of One Hundred Cases From the Presbyterian Hospital in the City of New York. By Janet Thornton. New York, Columbia University Press, [c. 1937]. 411 pages. 8vo. Cloth, \$3.00.

There can not remain any doubt in the minds of physicians of the need of the social component in medical care, though recognition of its value has not been rapid. Dr. W. W. Palmer in his foreword reminds us that the work was suggested only thirty years ago, that it was inaugurated at the Presbyterian Hospital about 1918, and that for the past twelve years it has been under the direction of Janet Thornton who with the collaboration of Marjorie S. Knauth, is the author of this book.

The study was made of 100 patients from the adult male and female wards of the hospital to determine the relations of the social conditions of the individual to his ill health, to his convalescence and to the recurrence of his disabilities. The relationship of the family physician has in the past brought him such information and made his knowledge of the social conditions of assistance in his practice and of special

direct benefit to the patient. The relationship of the hospital doctor and the expansion of his medical duties do not give him the time nor the opportunities to render that needed assistance, and the ward patient may acquire an idea of his personal insignificance. The author shows well how the social service complements the work of the doctor. There are very few physicians today but appreciate it. The environmental circumstances, the patients' feelings about them, the economic insecurity and inadequacy, the lack of proper employment for the individual and the conditions of his employment, the subject of fatigue, the home life and its responsibility, the availability of institutions for convalescence and chronic diseases with perhaps changes of climate—all these and many more are here studied to determine their real value and without suggesting for them any undue importance.

The author reports in detail many patient-records to illustrate the obstacles and difficulties, none seemingly less than the feelings and prejudices of the patient in regard to phases of the work, and makes known the comfort and help to the individual of a near source of courage and advice. The book has much merit and shows the experience and good judgment of the author. It will bring worth-while information to doctors of medicine in private practice as well as in hospitals, to officials and trustees of institutions who must consider its advisability and cost of continuing or expanding this service, and particularly to all those working in this social field.

THOMAS A. MCGOLDRICK.

*Using the Senses in Surgical Diagnosis*  
DEMONSTRATIONS OF PHYSICAL SIGNS IN  
CLINICAL SURGERY. By Hamilton Bailey,  
F.R.C.S. Sixth edition. Baltimore, William  
Wood and Company, [c. 1937]. 284 pages, illus-  
trated. 8vo. Cloth, \$6.50.

In the preface of the sixth edition of this worth-while book, the author regrets that certain commentators had mistaken the object of the work. This is not, and is not claimed to be a treatise on clinical surgery. It is a book on the proper elicitation and interpretation of physical signs in diagnosis and differential diagnosis—what the doctor can learn from the careful and intelligent

use of his senses without confirmation of laboratory findings.

We had occasion to look at the fifth edition of this book in 1936, and were delighted with the theory of the work and with the practical demonstration of the application of the theory. We feel that this new edition, with its additional illustrations, many in color, must continue to receive the approval of its readers.

JOSEPH RAPHAEL.

*Infectious Disease Control in Denmark*  
LECTURES ON THE EPIDEMIOLOGY AND  
CONTROL OF SYPHILIS, TUBERCULOSIS,  
AND WHOOPING COUGH, AND OTHER  
ASPECTS OF INFECTIOUS DISEASE. By  
Thorvald Madsen, M.D. (The Abraham Flexner  
Lectures Series Number Five). Baltimore, The  
William & Wilkins Company, [c. 1937]. 216  
pages, illustrated. 8vo. Cloth, \$3.00.

This book covers a series of five lectures given under the Abraham Flexner Lectureship in the School of Medicine of Vanderbilt University by Dr. Thorvald Madsen, Director of the State Serum Institute of Denmark. The subject matter is based upon experience in Denmark with comparisons made of disease incidence in other countries of the world.

The lectures on venereal diseases with special reference to syphilis epitomizes the well-known results obtained in Denmark in the reduction of that infection through drastic measures.

The mechanism of bacterial infection and the influence of seasons on the fluctuations in the incidence of certain infectious diseases are presented well in two other chapters.

An outline of the administrative procedures employed and the results obtained in the control of tuberculosis in Denmark may be of value to students of that infection.

Finally, whooping cough is discussed with emphasis upon the success secured in Denmark with vaccine used by the Bordet-Gengou method in prophylaxis and treatment.

ALFRED E. SHIPLEY.

*A Popular Physiology*  
THE HUMAN BODY. By Logan Clendening,  
M.D. Third edition. New York, Alfred A.  
Knopf, [c. 1937]. 443 pages, illustrated. 8vo.  
Cloth, \$3.75.

This is the latest revision of a book so well written that both patient and physician can enjoy its wealth of

present-day information about the human body. The author colorfully carries us along the historical route taken by our medical thinking from early misconceptions to our more nearly perfect current knowledge. We see the human body as a unit and as an organism converting food and air into tissue and energy. We read how it reproduces its own kind and finally its reaction to disease.

One may differ widely with certain phases of the author's philosophy of life, yet feel compelled by his excellent work to offer him a high tribute of commendation.

CARLETON CAMPBELL.

#### *A Guide on Writing Prescriptions*

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M.D. Sixth edition, revised. Philadelphia, W. B. Saunders Company, [c. 1938]. 155 pages. 16mo. Cloth, \$1.50.

The sixth edition of this well-known manual conforms to the latest United States Pharmacopeia and National Formulary. It should be in the hands of every physician who has occasion to prescribe drugs. Mastery of the contents of this small book would lead to more intelligent prescription writing and less prescribing of irrational proprietaries.

CHARLES SOLOMON.

#### *Medical Lectures to the Laity*

MILESTONES IN MEDICINE. Laity Lectures of the New York Academy of Medicine. Introduction by James A. Miller, M. D. New York, D. Appleton-Century Company, [c. 1938]. 276 pages, illustrated. 12mo. Cloth, \$2.00.

This book contains the 1936-37 series of lectures given to the laity by a group of outstanding medical scientists and teachers under the sponsorship of the New York Academy of Medicine. The chief purpose of these lectures is to acquaint the lay public with the latest advances in medicine, the evolutionary development of therapeutic measures, and their historical background.

Dr. Smith Ely Jelliffe presents an interesting resume of *The Historical Background of Psychiatry*.

Dr. Charles R. Stockard's paper on the *Mechanism of Heredity* is very scientific and probably too erudite for the laity.

A fascinating description of *Medicine at Sea in the Days of Sail* is the contribution of Dr. Karl Vogel.

*The Evolution of the Human Brain*,

by Dr. Frederick Tilney, is a paper of the highest scholarly calibre, which merits careful study.

Dr. Henry E. Sigerist has written *The History of Medical History* in a most entertaining manner.

*The History of Leprosy* is traced by Dr. Newton E. Wayson from the ancient times to the present, and *The Story of the Glands of Internal Secretion* is handled masterfully by Dr. Walter Timme in a limited space.

This book furnishes excellent reading material for both the physician and the layman.

WILLIAM RACHLIN.

#### *Serum Therapy in Pneumonia*

PNEUMONIA AND SERUM THERAPY. By Frederick T. Lord, M.D. and Roderick Heffron, M.D. Revised edition. New York, the Commonwealth Fund, [c. 1938]. 148 pages, illustrated. 8vo. Cloth, \$1.00.

The subject of the pneumococcus pneumonias and their therapy is covered in a concise and masterful manner. This monograph should be read by every physician and student of medicine.

Today, pneumonia is primarily a bacteriological diagnosis and the specific serum therapy of the pneumonias is being widely accepted.

The data of the Massachusetts Pneumonia Study included in this publication demonstrates conclusively that anti-pneumococcic serum can be used advantageously by physicians in general practice. It further shows what can be accomplished by the cooperation on a state-wide basis of the medical profession and the health department in reducing the mortality of a devastating disease.

Of special interest to the general practitioner will be the chapters on the technique of serum administration, precautions to be observed, and possible serum reactions and their treatment. There is also discussed the results of type-specific serum in the treatment of pneumonia due to the higher types.

From an appraisal of the results of the Massachusetts Pneumonia Study, it is encouraging to note that there has been a marked reduction from the expected death rate. Yet it quite obviously brings out the desirability of larger doses than were used in this study.

In conclusion, one may say that the

authors bring out the following points which will aid greatly in a reduction of the pneumonia fatality rate. 1—Early clinical recognition. 2—Immediate and accurate classification of the causative organism or organisms. 3—Adequate serum dosage with the intervals between divided doses being not too long. 4—Importance of administering more than the usual amount, of serum in severe cases.

B. B. GELFAND.

#### *A Pediatric Reference Manual Revised*

THE COMPLETE PEDIATRICIAN. Practical, Diagnostic, Therapeutic and Preventive Pediatrics. Second. Completely Rewritten Edition for the use of Medical Students, Internes, General Practitioners, and Pediatricians. By Wilburt C. Davison, M.D. Durham, Duke University Press, [c. 1938]. 243 pages. 8vo. Cloth, \$3.75.

The laudatory comments with which the first edition of Dr. Davison's book was received makes one anticipate, with unusual interest, the arrival of this, the second edition. Completely rewritten, it contains the essential information from 7500 recent pediatric references and by reason of this fact, and the remarkably practical method of compilation and arrangement, it is clearly a contribution of great importance towards raising the standards of pediatric practice. With rare originality and completeness, the author has recorded briefly pediatric facts which, though essential, so often slip from memory.

Of great practical aid to diagnosis, he has succeeded in a plan of arrangement which places emphasis on symptoms and signs, and by which he has listed with accompanying cross-reference numbers the various diseases in which these symptoms and signs occur. With all of this, there has been maintained, brief but up-to-date descriptions of the various diseases themselves. This first portion of the book is divided into seven chapters according to the anatomical system chiefly involved. By paragraph numbers, rather than page numbers for the diseases and by reference numbers for the symptoms, a numerical system at once unique and efficient has been employed. By this method one may locate, with ease, other diseases causing similar signs or symptoms.

Chapter VIII similarly correlated with the previous chapters is devoted to an

excellent description of the technic and value of the various laboratory tests employed in pediatric practice. Chapter IX deals with nutritional requirements, feeding and diet lists. Chapter X is concerned with therapy and nursing and chapter XI with growth, development and child care. Chapter XII records the proper methods for history taking and physical examination, while chapter XIII records the drugs and prescriptions frequently used in pediatrics.

The author has given to his profession that most invaluable of things, a means of instant consultation, a practical and reliable ready-reference book to which the physician may confidently refer for information which, if used properly, will aid him in avoiding erroneous diagnosis, and which will provide him with a fund of information.

It may be safely predicted that the profession will come to know and to cherish this manual as one to be used as a constant companion in daily practice. The author, by his prolific labor of some twelve years in the preparation of the first and second editions of this book, has rendered great service in bringing closer the science of medicine to its daily practice.

JOSEPH C. REGAN.



#### *Another Volume of Articles on English Therapy*

MODERN TREATMENT IN GENERAL PRACTICE. Volume III edited by Cecil P. G. Wakeley, F.R.C.S. Baltimore, William Wood and Company, [c. 1937]. 436 pages, illustrated. 8vo. Cloth, \$4.00.

This third volume continues the series of articles first appearing in the *Medical Press and Circular* of London. They are intended for the general practitioner, and recommended to him as methods which have "passed the drastic test of hospital experience".

There are fifty-one articles covering various topics of medicine and surgery without any particular sequence, written by different authors prominent in London hospitals. It is a readable volume of convenient size, and like its predecessors, will probably have a wide distribution.

WILLIAM E. MCCOLLOM.

### *Intestinal Pain as a Symptom*

DIGESTIVE TRACT PAIN. Diagnosis and Treatment. Experimental Observations. By Chester M. Jones. M.D. New York, The Macmillan Company, [c. 1938]. 152 pages, illustrated. 8vo. Cloth, \$2.50.

Everyone appreciates the value of pain in medical and surgical diagnosis. Digestive tract pain is particularly helpful to the clinician for it is probably fair to say that without the aid of this one symptom most of us would flounder about quite helplessly when faced with a patient having some disorder along the alimentary canal. Chester Jones' small, compact book covering experimental and clinical observations on direct and referred pain from the intestinal tract has, therefore, a very peculiar usefulness.

In the main, Jones' notes confirm those made by MacKenzie, but there are certain important differences, particularly in his observation that hepatic and splenic flexure pain tends to be localized. Two interesting sections in the book cover therapeutic principles and clinical histories illustrating the localizing value of pain. The book has much of value to recommend it.

ANDREW M. BABEY.

### *The Control of Venereal Diseases*

HANDBOOK ON SOCIAL HYGIENE. Edited by W. Bayard Long, M.D. and Jacob A. Goldberg, M.A. Philadelphia, Lea & Febiger, [c. 1938]. 442 pages, illustrated. 8vo. Cloth, \$4.00.

This is as the authors planned it to be—a source book on the various aspects of social hygiene, so-called, which in the American use of the words means control of venereal diseases—a term no longer popular and, certainly, not entirely proper. The physician who desires a handbook covering the campaign against syphilis and gonorrhea, the diseases themselves from their diagnostic, therapeutic, and sociological points of view will find the book readable and valuable.

The contributors are and have been leaders in their respective fields of clinical laboratory, public health, social, sociological, and nursing work. The general practitioner can find in its pages the immediate procedures which should be carried on in the usual case confronting him. The references at the end

of each chapter will lead him further into the details. As a refresher course for the physician who finds himself a bit overwhelmed by the present popular program for the combatting of gonorrhea and syphilis, this volume has a peculiarly appropriate place.

ALEC N. THOMSON.

### *Management of Bone and Joint Injuries*

FRACTURES AND DISLOCATIONS FOR PRACTITIONERS. By Edwin O. Geckeler, M.D. Baltimore, William Wood & Company, [c. 1937]. 252 pages, illustrated. 8vo. Cloth, \$4.00.

Fractures of every bone in the body are carefully considered. The joints which are most apt to be dislocated are also well described.

The author has been careful to keep the text clear and the illustrations pertinent, in general discussing only the most accepted treatment for the particular fracture or dislocation. In view of the fact that this book is really a guide to the handling of fractures and dislocations, particularly for the general practitioner or the students of surgery and those called upon to handle emergency cases, he has been wise in eliminating many treatments the description of which only tend to confuse the person using the book for reference. The number of automobile accident cases is increasing so rapidly and the medicolegal entanglements are so important that it is very essential for all those who are handling accident cases for the first time to know well the fundamentals of the treatment of fractures and dislocations. The author has omitted all of the elaborate apparatus and methods which will be found available in the well equipped hospitals, but which the family doctor and the younger man who sees the case in an emergency does not have at hand.

The book is well indexed and illustrated. Many of the illustrations are line drawings which show the point under discussion very distinctly. The reviewer believes that there is a real need for such a book on fractures and dislocations as this one. At the end of each chapter a complete reference list is found. The book is highly recommended.

MERRILL N. FOOTE.

## BOOKS RECEIVED

*Books received for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.*

- SYPHILIS, GONORRHEA AND THE PUBLIC HEALTH.** By Nels A. Nelson, M.D. and Gladys L. Crain, R.N. New York, The Macmillan Company, [c. 1938]. 359 pages, illustrated. 8vo. Cloth, \$3.00.
- A CHALLENGE TO SEX CENSORS.** By Theodore Schroeder. New York City, The Author, [c. 1938]. 157 pages. 8vo. Paper.
- A TEXT-BOOK OF PATHOLOGY.** Edited by E. T. Bell, M.D. Third edition, enlarged and thoroughly revised. Philadelphia, Lea & Febiger, [c. 1938]. 894 pages, illustrated. 8vo. Cloth, \$9.50.
- THE HEART IN PREGNANCY.** By Julius Jensen, M.R.C.S. St. Louis, The C. V. Mosby Company, [c. 1938]. 371 pages, illustrated. 4to. Cloth, \$5.50.
- SYMPTOMS OF VISCERAL DISEASE. A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine.** By Francis M. Pottenger, M.D. Fifth edition. St. Louis, The C. V. Mosby Company, [c. 1938]. 442 pages, illustrated. 8vo. Cloth, \$5.00.
- HEMORRHOIDS.** By Marion C. Pruitt, M.D. St. Louis, The C. V. Mosby Company, [c. 1938]. 170 pages, illustrated. 4to. Cloth, \$4.00.
- MEDIZINISCHE CHEMIE FÜR DEN KLINISCHEN UND THEORETISCHEN GEBRAUCH.** By Dr. K. Hinsberg and Dr. K. Lang. Wien, Urban & Schwarzenberg, [c. 1938]. 458 pages, illustrated. 4to. Paper, RM. 18.
- PRINCIPLES AND PRACTICE OF BACTERIOLOGY.** By Arthur H. Bryan, M.A. and Charles Bryan, M.D. New York, Barnes & Noble, Inc., [c. 1938]. 267 pages, illustrated. 8vo. Cloth, \$2.25.
- BILE ITS TOXICITY AND RELATION TO DISEASE.** By O. H. Horrall, M.D. Chicago, The University of Chicago Press, [c. 1938]. 434 pages. 8vo. Cloth, \$4.00.
- LEUKEMIA AND ALLIED DISORDERS.** By Claude E. Forkner, M.D. New York, The Macmillan Company, [c. 1938]. 333 pages, illustrated. 8vo. Cloth, \$5.00.
- IN THE NAME OF COMMON SENSE. Worry and Its Control.** By Matthew N. Chappell, Ph.D. New York, The Macmillan Company, [c. 1938]. 192 pages. 8vo. Cloth, \$1.75.
- AN INTRODUCTION TO CLINICAL SCOTOMETRY.** By John N. Evans, M.D. New Haven, Yale University Press, [c. 1938]. 266 pages, illustrated. 8vo. Cloth, \$4.00.
- SEX SATISFACTION AND HAPPY MARRIAGE.** By the Reverend Alfred H. Tyrer. New York, Emerson Books, Inc., [c. 1938]. 160 pages. 16mo. Cloth, \$2.00.
- EAT AND KEEP FIT.** By Jacob Buckstein, M.D. New York, Emerson Books, [c. 1938]. 128 pages. 8vo. Cloth, \$1.00.
- CLINICAL CHEMISTRY IN PRACTICAL MEDICINE.** By C. P. Stewart, Ph.D. and D. M. Dunlop, M.D. Second edition. Baltimore, William Wood & Company, [c. 1937]. 372 pages, illustrated. 16mo. Cloth, \$4.00.
- FATHER'S DOING NICELY.** The Expectant Father's Handbook. By David Victor. Indianapolis, The Bobbs-Merrill Company, [c. 1938]. 170 pages, illustrated. 8vo. Cloth, \$1.50.
- J. B. MURPHY. STORMY PETREL OF SURGERY.** By Loyal Davis, M.D. New York, G. P. Putnam's Sons, [c. 1938]. 311 pages. 8vo. Cloth, \$3.00.
- ON A NEW GLAND IN MAN AND SEVERAL MAMMALS. (Glandulae Parathyroideae).** By Ivar Sandström. Baltimore, Johns Hopkins Press, [c. 1938]. 44 pages, illustrated. 4to. Paper, \$1.00.
- HERNIA.** Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis and the Operative and Injection Treatment. By Leigh F. Watson, M.D. Second edition. St. Louis, The C. V. Mosby Co., [c. 1938]. 591 pages, illustrated. 4to. Cloth, \$7.50.
- CIVILIZATION AND DISEASE.** By C. P. Donison, M.D. Baltimore, William Wood & Company, [c. 1938]. 222 pages. 8vo. Cloth, \$3.00.
- ESSENTIALS OF PSYCHIATRY.** By George W. Henry. Third edition. Baltimore, Williams & Wilkins Company, [c. 1938]. 465 pages. 8vo. Cloth, \$5.00.
- A TEXTBOOK OF CLINICAL PATHOLOGY.** Edited by Roy R. Kracke. Baltimore, William Wood & Company, [c. 1938]. 567 pages, illustrated. 8vo. Cloth, \$6.00.
- MIDDLE AGE IS WHAT YOU MAKE IT.** By Boris Sokoloff, M.D. New York, The Greystone Press, [c. 1938]. 204 pages. 8vo. Cloth, \$1.75.
- MEN PAST FORTY.** By A. F. Niemoeller, M.A. New York, Harvest House, [c. 1938]. 154 pages, illustrated. 12mo. Cloth, \$2.00.
- STUDIES IN HYSTERIA.** By Dr. Joseph Breuer and Dr. Sigmund Freud. (Nervous & Mental Disease Monograph Series No. 61). Authorized translation with an introduction by A. A. Brill, M.D. Washington, Nervous and Mental Disease Publishing Company, [c. 1936]. 241 pages. 8vo. Paper, \$3.00.
- THE PSYCHOLOGY OF DEMENTIA PRAECOX.** By Dr. C. G. Jung. (Nervous and Mental Disease Monograph Series No. 3). Authorized translation with an introduction by A. A. Brill, M.D. Washington, Nervous and Mental Disease Publishing Company, [c. 1936]. 150 pages. 8vo. Paper, \$2.50.
- THE PRACTICE OF UROLOGY.** By Leon Herman, M.D. Philadelphia, W. B. Saunders Company, [c. 1938]. 923 pages, illustrated. 8vo. Cloth, \$10.00.
- A SYMPOSIUM OF CANCER.** Given at an Institute on Cancer Conducted by the Medical School of the University of Wisconsin, Madison, University of Wisconsin Press, [c. 1938]. 202 pages, illustrated. 8vo. Cloth, \$3.00.
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